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ABSTRACT

Twenty-one papers from the Division of Special Libraries are included in this collection: "Information Systems Planning as a Tool of Developing Library Work: The Case of Statistics Library" (Heli Myllys); "The Libraries of the French Central Government Departments and the Administrative Library of the City of Paris" (French and English versions; Pierre Casselle); "Legal Databases in France: The Current Market)" (French and English versions; Anny Maximin); "Access to Administrative Information" (French and English versions; Paul de Bourguesdon); "In the Community of the Social Sciences, Who Benefits from the New Information Technologies? (Dans la communaute des sciences socials, qui beneficie des Nouvelles Technologies de l'Informations)" (Jean Meyriat); "Crumbling Walls: The Impact of the Electronic Age on Libraries and Their Clienteles" (Joseph A. Rosenthal); "Increase of User Satisfaction Through Use of Electronic Media in a University Library" (Piedad Dector); "Chinese MARC Database on CD-ROM" (Nancy Ou-lan Chou, et al.); "Archiving and Distributing Aerial Photography and Space Images" (French and English versions; Daniel Plu and Guy Ducher); "The Financing of Spanish Map Libraries)" (English and Spanish versions; Montserrat Galera i Monegal); "PC CARTONET: A Microcomputer Version of the CARTONET Map Library Automation System" (Barbara Morris, et al.); "The Economics of Topographic Mapping of the United States" (Gary Worth); "Alternatives to Public Funding of University Science and Technology Libraries: The North American Experience" (Nancy D. Anderson); "Document Supply by Science and Technology Libraries--Is There a Role for International Organizations?" (Elin Tornudd); "New Approaches to the Management of Medical Libraries in the Czechoslovak Socialist Republic" (Jan Peska); "ADONIS: Between Myth and Reality. Trial Document Supply Using CD-ROM Technology" (Ulrich Korwitz); "The Economic Impact of the Document Delivery on Scientific Journals" (Marc Walckiers); "French Art Libraries and the New Technologies of Pictures" (French and English versions; Michel Melot); "Photographic Collections in Japan: Accessibility and New Technology" (French and English versions; Hiroyuki Hatano); "Librarianship, Law, and Communication: The Issue" (French and English versions, Jean Martin); and "Supranational and Constitutional Courts in Europe: Functions and Sources: Germany, Austria, and Switzerland" (Joachim Schwitzke). (SD)

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Brochure 20 / *Booklet 20*

DIVISION DES BIBLIOTHÈQUES SPÉCIALISÉES
DIVISION OF SPECIAL LIBRARIES

SECTION DES BIBLIOTHÈQUES ADMINISTRATIVES
SECTION OF ADMINISTRATIVE LIBRARIES

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Information Systems Planning as a Tool of Developing Library Work : the Case of Statistics Library *(7-ADM-1-E)*	Heli MYLLYS, Chief Librarian, Statistics Library, Central Statistical Office of Finland, Helsinki, Finland
Les Bibliothèques des administrations centrales françaises et la Bibliothèque administrative de la Ville de Paris *(8-ADM-2-F)*	Pierre CASSELLE, Conservateur à la Bibliothèque administrative de la Ville de Paris, France
Les Banques de données juridiques françaises : état du marché *(67-ADM-4-F)*	Anny MAXIMIN, Conservateur, SEDAC-Bibliothèque Cujas de droit et sciences économiques, Paris, France
L'Accès à l'information administrative *(66-ADM-3-F)*	Paul de BOURGUESDON, Bibliothèque administrative de la Ville de Paris, France

SECTION DES BIBLIOTHÈQUES DE SCIENCES SOCIALES
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Crumbling Walls : The Impact of the Electronic Age on Libraries and Their Clienteles *(83-SOC-1-E)*	Joseph A. ROSENTHAL, University Librarian, University of California at Berkeley, Berkeley, California, USA
Increase of User Satisfaction Through Use of Electronic Media in a University Library *(112-SOC-5-E)*	Piedad DECTOR, Head Librarian, Centro de Información Científica y Humanistica, Universidad Nacional Autónoma de México, México

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La Financiación de las cartotecas en España *(124-GEO-3-S)*	Monserrat GALERA i MONEGAL, Head of the Cartoteca de Catalunya of the Institut Cartografic de Catalunya, Departament de Politica Territorial i Obres Publiques, Generalitat de Catalunya, Barcelona, Catalonia, Spain
PC-CARTONET : a microcomputer version of the CARTONET map library automation system *(86-GEO-1-E)*	Barbara MORRIS [et al.], Business Manager, Geographical Information Systems Applications Unit, University of Edinburgh, UK

SECTION DES BIBLIOTHÈQUES SCIENTIFIQUES ET TECHNIQUES
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Les Collections photographiques au Japon : accessibilité et nouvelles technologies *(29-ART-1/AVM-1-F)*	Hiroyuki HATANO, Tokyo Metropolitan Central Library, Japan
Bibliothèque, droit et communication : enjeux *(123-ART-3/AVM-3-F)*	Jean MARTIN, Chargé d'enseignement à l'Université Paris-Dauphine, Avocat à la Cour, Paris, France

Information Systems Planning as a Tool of Developing Library Work : the Case of Statistics Library

Heli MYLLYS, *Chief Librarian, Statistics Library, Central Statistical Office of Finland, Helsinki, Finland*

ABSTRACT

An information system planning method METO was applied in the Statistics Library in order to solve the problems of lacking automation, innefficient information services and other bottlenecks in work-flow.

The planning project resulted ten development projects for five years. The development was shown beneficial in better quality of library services, rationalization of work and better job satisfaction. It also had strong educational and psychological impact on the staff.

The participative method used required a lot of work but secured full commitment of both staff and the parent organization.

INTRODUCTION

This paper aims to describe the role and benefits of the information systems (IS) planning as a tool of developing library services. The discussion is based on the case and experiences of the Statistics Library of the Central Statistical Office of Finland. My starting point is that the IS planning is strategic planning. Every organization needs strategy and libraries make no exception in this respect.

The IS planning is a relatively new method and it doesn't very often seem to be used in the libraries. A quick check in the Library Literature database provided 6 references, Lisa database in turn provided 29 references on the subject. Search phrase used was "Information systems analysis or information systems planning". Only one of the references was a case study of this kind.

In the following paper I try to answer such questions as : What is the IS planning all about ; how and why did we pick up the used method ; what did it take to perform ; what consequences and benefits did it result in ; what expenses occurred ; what are our suggestions to other libraries.

BACKGROUND OF STUDY

Library characteristics

The Statistics Library is one of the ten central research libraries in Finland. It is in charge of information services in the area of statistical information ie. "facts and figures". This means in practice that the library services mainly concentrate on information services rather than conventional library work.

The emphasis of the collection is in serials and periodicals, not individual monographs etc. The statistical serial titles amount in 5 000. Total holdings comprise about 220 000 volumes and then cover more than four kilometres of shelf space.

The Central Statistical Office Archives is a part of the Library. Its collections comprise of 11 kilometres of shelf space. Total staff of the Library and the Archives is 17.

Problems to be solved

In 1987 the workload of the information service was reaching such a degree that each member of the staff was overstressed and all library functions were suffering from the lack of resources. We all knew that too much work was done manually and repeatedly. Organization and work flows did not respond to the new strategic goals set by the parent organization. Thus the Central Statistical Office became an "Information Service Clearinghouse". In this concept the Library should act effectively as its "shopping window" using modern information technology. We needed apparently a revision of our own procedures and practices and we had to start thinking of the basic question of every organization : why do we exist ?

It was decided to start an information systems planning project to develop the library functions. An IS planning method called METO was chosen because of its high reputation both in the public and private sector. The Ministry of Finance also demanded the IS planning to be carried out before any money was given for information systems investments.

Overview of IS planning methods

There are a few recognized IS planning methods, still some organizations do plan without any formal method. Here is a sample of methods. None of them is based on a general theory[1].

The oldest and most famous of all is the Business Systems Planning method of IBM. It was first introduced in 1975 and its latest version is from 1984. BSP is a four-stage life cycle model which aims to outline the functions of the organization, conclude their information needs and define the architecture of information systems and applications. The method is strongly restricted to the management point of view, even if it is involving the end-users.

The Nolan's stage model is basis for several widely used planning methods. The method user's situation is estimated on the basis of a general DB development model. Its main weakness is that a descriptive development model is often out of date and that the average development rarely corresponds to the real situation.

Information Engineering is a new direction in the IS planning. Its basic idea is to combine the four systems work levels : strategy, business area analysis, systems planning and implementation into a tool which results in an integrated planning over phases.

Participative IS planning method METO

The Finnish IS planning method METO was first introduced in 1979. It is a joint venture of Helsinki School of Economics and the Ministry of Finance. METO has been developed further and its third version is under work at Helsinki School of Economics.[2]

METO has been widely accepted both in the public and private sector. It differs from the above mentioned methods in that METO has a strong participative element. The participation was developed to involve the top management and the key end users. They are the only people who know the details of work processes.

Participation means also commitment in future investments. For the corporate management this means money ; for the end-users this means a "promise of loyalty". Commitment is achieved by a series of seminars in which different participants' viewpoints are being compromised.

Finally, it can be mentioned that problems and their analysis is essential to this method.

The importance and benefits of the IS planning was lately reported in a study of over 100 large Finnish companies. METO performed well in the comparison. Successful companies have more often integrated the IS planning and the business planning and use more resources for the planning in general.[3]

The training of a new technology is crucial for the achievement of goals set by the IS planning methods.

METO IN OUR LIBRARY

We had a project plan ready for half a year's time before starting the project. It didn't start until we got money to hire a consultant to assist the project manager (chief librarian). The consultant was needed to help by working with the users. It is the consultants duty to draw out the information from the users and convey this to the designer in terms which both sides can understand. The time-table of the project was three months in order to make a development program for five years.

The project staff consisted of the consultant as the method expert, project manager, two librarians, an archivist, a systems analyst and a personnel training consultant. The project group had meetings once a week in the first stage.

The project steering group consisted of the director of the Development and Administrative Group (one of the two groups of the CSO), the information systems manager, the chief librarian and the hired consultant.

The steering group meetings served as "approval" points of previous stages. These meetings were also useful in committing the parent organization to the goals agreed.

The project produced an output of material some 10 kilograms ; The final report had some 50 pages and its appendices about 60 pages. The consultant's fee amounted to 30 000 FIM for ten man-days' work. The project needed quite a lot mandays from the participants (which were not summed up) and the schedule of three months appeared to be a bit too tight.

Stages of the project

The three months' time was divided into stages as follows:

1) Describing the present tasks, information processing systems (whether manual or automatic), present problems, connections, information needs and goals.
2) Analysing how tasks and data processing meet. Defining development needs and estimating the benefits of development. Stages 1-2 took one month and a half.

Our coffee room turned into a "problem-headquarter". Everybody could see with own eyes what was wrong with the library because we wrote the defects on pieces of paper and fastened them on the walls. This wall-technique is one of the tools of METO. We had a myriad of problems.

3) Defining the development strategy. Planning the future architecture of data processing. Outlining development needs, development projects and cost-benefit analyses. This stage took one month.
4) Conclusion which includes scheduling the development projects, organizing the development work and writing the final development report. This stage took a fortnight.

In the analysis seminar we found out that the most serious problems in our library functions appeared to be in order of importance:

1) Different cataloguing to different systems
2) Lack of automated catalogue of archive material
3) Lack of automated serials and periodicals control
4) Lack of current awareness of new statistical entries
5) Lack of personal computing skills
6) Production of library publications
7) Manual lending system
8) Periodicals circulation system
9) Statistics for the management of library functions

In the evaluation seminar in the strategy-making stage we decided that those problems were in connection with the following development goals. The first goal is to get an in-house real-time database for all cataloguing and one format for all purposes. The second goal is to merge the library's and the CSO's data processing more closely together. This is important because of a continuous support from the parent, change of information and possibility to search library catalogues outside the library.

The third goal is to integrate the library with other Finish scientific libraries. Last but not least our aim is to develop all other activities of the library.

Problem solving in action

The solution to most problems was deemed to be an integrated library system which is adopted by the Ministry of Education for the scientific libraries. This system is called VTLS (Virginia Technical Library System) and the decision was based on the following reasonings:

— it was made for libraries;
— it is tested and adopted in Finland before installing in the Statistics Library;
— it is reasonable to be in the same system with other scientific libraries;
— it is secure and needs no own programming from the parent.

Development program

The development program was completed in the last stage of the project by the end of 1987. The ten development projects for the five coming years were divided into a) projects for the library data processing, b) projects for the development of archives and c) other development projects.

The main project in the development program is the implementation of the VTLS. It won't work in full range until 1991 for several reasons. Within the development program, though, we have nine minor projects which all lead to the same direction. Thus, we already get some profit from the future system.

Each development project states principles and goals plus all changes necessary compared with the present situation. Eliminated problems, attainable benefits, cost estimate and scheduling are also covered in detail.

ACHIEVEMENTS OF THE PROJECT

The first year of implementation of the development program was very successful. We could complete five of the six development projects to be carried out in 1988. All this was achieved without any considerable delays in the normal work routines. This was possible because of the learning process we all had gone through in the project.

The learning process implies that everybody knows the goals and the "purpose of existence" of the library. It is easier to fullfil such development processes as are stages in the direction that everybody has accepted. This kind of consensus is not easy to reach and it demands a lot of work.

Better organization of work

One of the main goals of the IS analysis is also to develop library functions. That is — the library's organization, sharing of work, job contents and working methods.

A lot of problems not associated with data processing were listed in the analysis phase. These problems were dealt separately in a project of their own in the development program. This project, which took place last year, has also been very successfull.

As a result, it was realized that former work methods were ten years out of date and they clashed with the new claims. Further, it was felt necessary to carry out continuous development of work methods.

A work model called "team work" resulted from the project. For us team work means that we divided the staff into two teams. One team is responsible for all information services a week at a time. This team or task force on-duty is taking care of all lending, training of customers, shelving and information services to clients. The off-duty team can devote to development, back office work etc.

Both teams should have approximately the same qualifications and standard of training. This means a continued training program and an increased flow of information between the teams and their members.

Self-made applications

One of the surprising achievements was a self-made and successful application for the library housekeeping-functions. A very low-cost but efficient PC database management system program was used for the periodicals' control and circulation. This item was one of the problems listed in the analysis phase.

Further consequences

The METO project and its consequences turned out to be beneficial to the library in its parent organization. The library was the first unit to carry out an IS analysis project and its fame grew up. The chief librarian was even appointed to the project manager in a bigger IS planning project for the whole Development and Administrative Group of the CSO.

CONCLUSIONS

I highly recommend every major library to start an IS analysis project if they want to develop the library: to get better service and to make the library functions more effective. It is true that it takes a lot of time and trouble. It can be even boring and repetitious in the analysis phase. This process is, however, the best thing that ever happened to my library!

Here are some pieces of practical advice to those who want to carry out an IS planning project:

1) You can never motivate your people too much in the beginning of the process.
2) The IS analysis is a great weapon to commit your people and your superiors to the development.
3) You never describe the present situation too detailed in the depicting phase.
4) The project is an continuous process of learning and development.
5) The real development starts only after the IS analysis project; it is a continuing process because you make it over every five years.
6) Be prepared to devote your time, engage a good consultant as a method adviser. But take this as an investment for a better future.
7) Any analysis of this kind is going to increase the participants self-confidence and PC literacy.

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8-ADM-2-F

Les bibliothèques des administrations centrales françaises et la Bibliothèque administrative de la ville de Paris

Pierre CASSELLE, *Conservateur à la Bibliothèque administrative de la ville de Paris, Paris, France*

Une présentation des bibliothèques des ministères ou des grandes administrations françaises est relativement difficile à faire. En effet, ces collections de livres, souvent anciennes, sont rarement des entités à part entière, distinctes, sinon distinguables des services administratifs auxquels elles doivent fournir la documentation et les informations nécessaires au travail.

Les administrations, pourtant, ont éprouvé très tôt le besoin de bibliothèques contenant les ouvrages utiles pour la gestion des affaires dont elles étaient en charge. C'est le cas, par exemple, sous l'Ancien Régime, des ministères de la Guerre et des Affaires étrangères. C'est surtout au 19e siècle que ce type de bibliothèques a fait son apparition en France, pour répondre à l'élargissement du champ d'intervention de la puissance publique et à la complexité croissante des affaires à traiter. En 1800, fut ainsi créée la bibliothèque du Conseil d'Etat dont la direction fut confiée à Barbier, le célèbre auteur du *Dictionnaire des ouvrages anonymes*.

Mais c'est du règne de Louis-Philippe (1830-1848) que date le développement des bibliothèques administratives françaises. A cette époque, le bibliothécaire du ministère de l'Intérieur écrivait avec enthousiasme : "La connaissance des lois administratives et de leurs nombreuses interprétations est indispensable (...) à tous les fonctionnaires de l'ordre administratif. La pratique ne suffit pas, il faut encore pouvoir appeler à son appui la théorie et les commentaires (...). Aussi l'utilité des bibliothèques administratives est-elle hors de discussion ; elle n'a pas besoin d'être démontrée, tout le monde l'admet, les fonctionnaires, les administrateurs, les employés intelligents et laborieux, plus que tous les autres"[1].

Au milieu du 19e siècle, la plupart des ministères étaient dotés d'une bibliothèque administrative importante dont les fonds faisaient l'objet de catalogues imprimés destinés à être diffusés. La seconde partie du 19e siècle, jusqu'à la Première Guerre mondiale, fut une période féconde pour les bibliothèques administratives ; pourtant peu d'entre elles bénéficiaient d'un statut assurant leur autonomie au sein de leur administration. Elles n'existaient souvent que par leurs fonds d'ouvrages, eux-mêmes parfois répartis entre les différents services du ministère. Le rattachement administratif des bibliothèques au sein de leur ministère variait fréquemment ; très souvent, elles étaient associées au service d'archives. La tendance était cependant de les placer dans les attributions d'un service central (Secrétariat général ou Cabinet), sous l'autorité d'un cadre administratif qui avait la direction de la bibliothèque parmi d'autres responsabilités plus importantes pour sa carrière. Autre indice révélateur de leur absence d'existence administrative, elles ne disposaient pas de crédits individualisés dans les budgets ministériels.

La situation des bibliothèques administratives ne s'améliora pas entre les deux guerres. Manquant de moyens et de personnel qualifié, elles se sclérosèrent, ne rendant plus à l'administration les services qu'on pouvait attendre d'elles. L'importance de leurs fonds fut même parfois considérée comme un handicap. Aussi, aux lendemains de la Seconde Guerre mondiale, de nombreuses administrations s'en séparèrent, au profit de simples centres de documentation.

Quelle est la situation aujourd'hui ?[2]

Les grands corps de l'Etat, tels que le Conseil d'Etat, la Cour des comptes et la Cour de cassation, possèdent d'importantes et anciennes bibliothèques administratives, toutes trois reconstituées après leur incendie en 1871, pendant la Commune de Paris. C'est également le cas de certains grands ministères, dont la création remonte à la Révolution et dont les structures sont toujours demeurées stables : ministères de la Justice, des Finances, des Affaires étrangères, de la Défense. Le ministère des Postes, créé dans le dernier tiers du 19e siècle, dispose d'une bibliothèque dont l'origine remonte à 1878. En revanche, certains ministères, pourtant anciens, comme les ministères de l'Intérieur, de l'Agriculture ou de l'Industrie, ont réorganisé leurs bibliothèques centrales après la Seconde Guerre mondiale. C'est à cette époque que fut créée la bibliothèque de l'actuel ministère de l'Equipement et du Logement, ainsi, bien sûr, que la bibliothèque de la direction de la Documentation française qui dépend du Premier Ministre. Les structures ministérielles françaises n'étant pas caractérisées par leur permanence, des bibliothèques ont pu subir les avatars de leur administration : ainsi la bibliothèque qui est actuellement commune aux ministères de la Santé et du Travail est constituée par les fonds de deux bibliothèques administratives autrefois distinctes[3].

Ces bibliothèques (qui sont presque toujours rattachées à la direction de l'Administration générale de leurs ministères respectifs), sont finalement assez disparates. Certaines, dans la tradition du 19e siècle, ont une vocation encyclopédique, comme celles du Conseil d'Etat, du ministère de l'Intérieur ou du ministère des Finances. D'autres, sont plus spécialisées, comme les bibliothèques de la Cour des comptes, de la Cour de cassation, des ministères du Travail et de la Santé, de la Justice, des Postes, de l'Industrie. D'autres sont plutôt des centres de documentation que de véritables bibliothèques ; c'est le cas aux ministères de l'Agriculture, de l'Education nationale, de l'Equipement et du Logement, du Commerce, des Transports, etc. Certaines, au contraire, sont des bibliothèques de conservation et de recherches, rattachées aux services d'archives de leur ministère, ainsi aux Affaires étrangères ou à la Défense.

Lorsqu'une administration possède une bibliothèque ayant une vocation de documentation générale et de conservation, cette dernière est souvent complétée par des centres de documentation spécialisés : par exemple au Conseil d'Etat, à la Cour des comptes ou au ministère de la Défense.

Le statut du personnel responsable des bibliothèques administratives est à l'image de cette disparité. Si certaines administrations confient la direction de leur bibliothèque à des professionnels, d'autres les placent encore sous l'autorité directe d'un cadre administratif, situation, nous l'avons vu, déjà dénoncée au 19e siècle !

Certains traits, en revanche, sont communs à l'ensemble des bibliothèques administratives.

L'accès, réservé aux membres des administrations dont elles font partie, n'est permis au public que sur autorisation et justification de travaux de recherches (à l'exception, bien entendu, de la bibliothèque de la Documentation française, dont la vocation est surtout l'information du public). La consultation des ouvrages se fait sur place, mais le prêt est admis pour le personnel des administrations. La plupart de ces établissements participent cependant au prêt interbibliothèques, parfois uniquement dans le cadre des bibliothèques administratives. Toutes pratiquent le service-réponses par téléphone pour les agents de leur administration, ainsi que les recherches documentaires personnalisées, et présentent régulièrement leurs ressources dans un bulletin des nouvelles acquisitions.

Au total, donc, un fonctionnement similaire pour des établissements disparates et totalement indépendants les uns des autres. Contrairement aux bibliothèques municipales ou universitaires, les bibliothèques administratives ne sont pas soumises à une autorité de tutelle commune : elles ne constituent pas un réseau organisé. Les liens qui existent entre elles, purement professionnels, voire personnels entre leurs responsables, ne sont pas plus étroits qu'avec des bibliothèques d'un autre statut mais qui se consacrent à des domaines proches et peuvent ainsi être complémentaires pour les lecteurs qui les fréquentent.

Je présenterai maintenant, à titre d'exemple un peu aberrant, la bibliothèque administrative où je travaille, celle de la Mairie de Paris.

Située au 5e étage de l'Hôtel de Ville, dans des locaux prestigieux qui l'ont sans doute protégée des tentations de démembrement[4], la Bibliothèque administrative a succédé à la bibliothèque publique de la Ville qui avait totalement disparu

dans l'incendie de 1871. Mais, dès sa création, elle fut destinée au service de l'administration parisienne, dirigée alors par un fonctionnaire de l'Etat, le préfet de la Seine. Les préfectures des autres départements français disposaient également de bibliothèques administratives, mais en raison de l'importance des tâches auxquelles l'administration de la préfecture de la Seine devait faire face, sa bibliothèque fut rapidement comparable à celles des plus grandes administrations de l'Etat.

On constate que, dès l'origine, le fonds d'ouvrages de la Bibliothèque administrative de la Ville de Paris a un caractère presque encyclopédique et révèle le souci de couvrir tous les centres d'intérêt de l'administration municipale, y compris par l'achat d'ouvrages anciens. En outre, grâce aux échanges établis entre la ville de Paris et des Etats et des grandes villes étrangères, le fonds général fut, dès la fin du 19e siècle, doublé d'un fonds étranger qui élargit la spécialité de la Bibliothèque dans les domaines de l'histoire administrative, démographique et statistique[3].

Dépendant d'une administration locale exceptionnelle sous tous les rapports, la bibliothèque administrative de l'Hôtel de Ville apparaissait exemplaire à la fin du 19e siècle. Ainsi pouvait-on lire dans le *Répertoire du droit administratif* : "En louant la pensée qui inspira la création de la bibliothèque centrale du ministère (de l'Intérieur), nous avons eu l'occasion de constater que les résultats répondaient mal au but poursuivi (...). Il existe à Paris une autre bibliothèque administrative, conçue sur le même plan, mieux organisée, plus complète et appelée à rendre les mêmes services, non seulement aux fonctionnaires, mais au public : celle de la préfecture de la Seine."[4].

Sur des bases de départ très larges, le développement continu des collections depuis plus d'un siècle, au fur et à mesure des besoins de l'administration parisienne, en a fait une grande bibliothèque de sciences humaines de 450 000 volumes environ, riche, en particulier, dans les domaines du droit, de la politique, de l'économie, des sciences sociales, de l'histoire, mais possédant aussi des ouvrages de base permettant de répondre rapidement à une question générale d'art, de littérature ou de géographie, par exemple.

Longtemps rattachée au niveau central de l'administration (Secrétariat général ou Cabinet), la Bibliothèque administrative dépend désormais du bureau des Bibliothèques de la direction des Affaires culturelles de la Mairie de Paris, comme les bibliothèques municipales de lecture publique, comme les discothèques de prêt, comme la Bibliothèque historique ou la Bibliothèque Forney. C'est donc dans le cadre de l'une des directions spécialisées de la Mairie que la Bibliothèque administrative doit assurer son rôle de service central de documentation pour l'ensemble des directions de la Mairie, pour le Secrétariat général, le Cabinet du Maire et souvent le Conseil municipal. Cette situation entraîne parfois des malentendus sur les critères d'évaluation de nos activités de recherche et de documentation, lorsqu'elles sont comparées aux statistiques des prêts à domicile des bibliothèques de lecture publique, ou même à la simple communication d'ouvrages dans d'autres bibliothèques municipales spécialisées.

La Bibliothèque administrative de l'Hôtel de Ville doit assumer deux fonctions, souvent complémentaires, parfois contradictoires : celle de centre de documentation de la Mairie de Paris et celle de bibliothèque spécialisée d'études et de recherches ouverte au public. A ces deux fonctions principales, s'ajoute un rôle que l'on pourrait qualifier de "suppléance", celui de la fourniture aux administrés des documents officiels municipaux ou nationaux[5].

En tant que service central de documentation de la Mairie, la Bibliothèque administrative effectue elle-même les recherches qui lui sont demandées par téléphone, note ou coursier, et fournit ainsi ouvrages, photocopies de textes, et souvent aussi dossier ou même note de synthèse. Pour remplir cette fonction, la Bibliothèque dispose des catalogues auteurs et matières des ouvrages, ainsi que de fichiers documentaires manuels, alimentés par le dépouillement des périodiques dans les domaines de la réglementation nationale et parisienne, de la documentation administrative, économique, sociale, politique et biographique.

Lorsque les besoins particuliers d'une recherche l'exigent, nous complétons notre documentation obtenue manuellement par l'interrogation d'une quinzaine de banques de données juridiques, commercialisées par les sociétés *Teleconsulte* et *Juridial*. Ces banques intègrent, de façon exhaustive ou sélective, les textes législatifs et réglementaires nationaux, les décisions des tribunaux nationaux, des études rédigées par des spécialistes sur des sujets d'ordre juridique. Les textes sont intégrés sous forme de références, de résumés, ou en texte intégral.

L'accès à ces banques de données n'est pas ouvert à nos lecteurs ; elles sont utilisées de façon interne, pour les recherches que nous effectuons nous-mêmes pour l'administration, notre service de documentation étant jugé de la rentabilité d'aboutir au résultat demandé, de manière traditionnelle ou automatisée. D'ailleurs ces banques de données ne fournissent pratiquement pas de textes antérieurs à 1960.

En raison de l'extrême diversité des affaires traitées par les différentes directions de la Mairie, nous ne pouvons pas prétendre fournir une documentation pertinente dans tous les domaines. Ceci est surtout vrai pour les directions techniques (Construction et logement, Voirie, Architecture, etc.), qui disposent de centres de documentation spécialisés[6]. En règle générale, nous achetons des ouvrages susceptibles d'intéresser plus d'un seul service de la Mairie, ce qui exclut les documents de technique pure.

La Bibliothèque ne se contente pas d'attendre les questions de ses interlocuteurs, mais essaie d'aller au devant de leurs besoins, voire de les provoquer. C'est ainsi que nous adressons chaque semaine, à 310 services de la Mairie, un bulletin des sommaires de nos principaux périodiques intéressant l'administration, accompagné d'un bon de commande de photocopies des articles. Le bulletin des sommaires, non seulement assure une utilisation plus large de nos périodiques et rentabilise ainsi nos abonnements, mais contribue aussi très efficacement à faire connaître l'existence de la Bibliothèque à l'intérieur de notre administration dont les services sont dispersés dans tout Paris. La Bibliothèque existe ainsi concrètement, chaque semaine, même pour des agents qui ne sont peut-être jamais venus dans la salle de lecture à l'Hôtel de Ville. Par l'intermédiaire de ce bulletin, la Bibliothèque participe à l'information des fonctionnaires dans la gestion des affaires municipales, mais également à leur formation permanente, lors de la préparation des concours administratifs notamment.

La Bibliothèque administrative est également ouverte au public, comme toutes les bibliothèques dépendant du bureau des Bibliothèques de la ville de Paris. Mais contrairement aux fonctionnaires de la Mairie de Paris, les lecteurs "extérieurs" ne peuvent consulter les livres que sur place, à la salle de lecture.

Le public extérieur de la Bibliothèque se compose essentiellement d'étudiants en droit ou sciences économiques et politiques, de chercheurs en histoire des 19e et 20e siècles (en particulier sur l'histoire de Paris), d'architectes, d'urbanistes, etc. Il faut reconnaître que de nombreux étudiants fréquentent la Bibliothèque de l'Hôtel de Ville pour trouver des conditions de travail que ne leur offrent pas toujours les bibliothèques universitaires qu'ils devraient utiliser et auxquelles les bibliothèques spécialisées ne pourront pas se substituer longtemps sans risquer de ne plus rendre un service efficace aux chercheurs confirmés. Nous remarquons d'ailleurs les "à coups" d'affluence à l'approche des examens universitaires ou à l'occasion de la fermeture de certaines bibliothèques géographiquement proches.

Une part importante de nos acquisitions de documents et de nos abonnements de périodiques s'adresse à des chercheurs universitaires que nous souhaitons vivement voir travailler à la Bibliothèque administrative : thèses de droit, études d'histoire administrative, politique, économique et sociale des 19e et 20e siècles, instruments de travail, etc. Dans le même esprit, nous continuons d'enrichir le fonds ancien d'imprimés et de manuscrits, par des achats chez les libraires spécialisés ou en ventes publiques. Afin de faire découvrir ces fonds anciens à un nombre plus important de chercheurs, nous avons engagé une politique de publication de catalogues imprimés thématiques, de même que nous présentons certains de nos documents à des expositions, comme organisateurs ou comme prêteurs[7].

Bien entendu, l'utilisation des documents de la Bibliothèque administrative n'est pas aussi schématique que mon exposé peut le laisser supposer. En effet, de même que la plupart des étudiants utilisent des manuels ou des périodiques de jurisprudence qui, dans notre esprit, doivent satisfaire prioritairement aux demandes de l'administration parisienne, de même des ouvrages d'histoire, voire des ouvrages anciens nous servent fréquemment à répondre aux questions de l'administration municipale.

Cette dernière remarque me ramènera, en conclusion, au

thème général du Congrès. Une bibliothèque administrative coûte-t-elle cher ? A cette question, je répondrai sans aucun doute, oui. Comme dans toute bibliothèque spécialisée, les ouvrages à acquérir sont onéreux et les abonnements de périodiques nombreux. De plus, le personnel scientifique capable de répondre aux besoins documentaires de l'administration doit être en nombre suffisant. En revanche, les tâches répétitives qui sont susceptibles de devenir moins coûteuses par automatisation ou centralisation, sont incomparablement moins nombreuses qu'en lecture publique.

Les administrations de tutelle sont donc tentées, et c'est à mon avis une bonne chose, de rentabiliser quantitativement les bibliothèques administratives en les ouvrant au public. Il est malheureusement plus difficile de faire admettre que les bibliothèques administratives sont rentables simplement par l'information qu'elles diffusent pour une meilleure gestion du service public.

NOTES

1 L. Vidal, *Essai sur les bibliothèques administratives*, Paris, 1843.

2 Direction des bibliothèques et de la lecture publique, *Répertoire des bibliothèques et organismes de documentation*, Paris, 1971. — *Guide des centres d'information et de documentation des administrations : Paris et Ile-de-France*, Paris, 1982. L'inventaire des bibliothèques et centres de documentation de l'administration est interrogeable en ligne (base ORIADOC).

3 M. Dreyfus, *Les sources de l'histoire ouvrière, sociale et industrielle en France...*, Paris, 1987, p. 241.

4 La Bibliothèque a été inscrite à l'Inventaire supplémentaire des Monuments historiques en 1988.

5 Le fonds étranger de la Bibliothèque administrative compte près de 50 000 volumes, datant du milieu du 19e siècle aux années 1920 environ. Il est en cours de catalogage.

6 L. Béquet, *Répertoire du droit administratif*, tome 3, Paris, 1885, p. 491.

7 Même si la loi du 17 juillet 1978 confie ce rôle aux services producteurs des documents administratifs et non aux bibliothèques, même administratives.

8 Voir : *Se documenter à la Ville : répertoire des cellules documentaires*, Mairie de Paris, Bureau de la Formation professionnelle, 1988.

9 *Catalogue des manuscrits de la Bibliothèque administrative de la Ville de Paris*, Paris, 1988 ; *Des grands chantiers... hier*, Paris, 1988 ; *Livre du centenaire de la reconstruction de l'Hôtel de Ville*, Paris, 1982. La Bibliothèque administrative prépare la publication de catalogues consacrés à ses fonds sur les anciennes colonies françaises et britanniques, à ses fonds des Etats-Unis, de l'Allemagne et de l'Autriche-Hongrie.

67-ADM-4-F

Les Banques de données juridiques françaises : état du marché

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Ces dernières années, on assiste en France à une prolifération législative et réglementaire résultant de l'intervention croissante de l'Etat dans la vie économique et sociale. En moyenne, 9 000 textes sont votés ou signés chaque année. D'autre part, la jurisprudence joue un rôle à part entière dans la création du droit : les magistrats ne se contentent pas d'interpréter la règle de droit, ils cherchent à combler le vide juridique laissé par le législateur. Le nombre des décisions rendues chaque année est important : 26 000 pour les seules Cours Suprêmes (Conseil d'Etat, Cour de Cassation). A l'inverse, le nombre des décisions publiées reste faible : 20 % pour la Cour de Cassation, 10 à 15 % pour le Conseil d'Etat. Pour les décisions de première instance et les Cours d'Appel ce taux est d'environ 2 %[11], p. 4 et les délais de publications sont longs. Aussi se pose le problème de l'accès à cette information.

L'informatique juridique est la "Science du traitement de l'information juridique par l'ordinateur"[13] et dans le domaine des banques de données, la France occupe une place de choix : les premiers travaux de l'IRETIJ remontent à 1965, leur essor date des années 1981-1983. Complémentaires quant aux domaines couverts, les banques de données juridiques se sont rapprochées par le contenu tout en restant incompatibles sur le plan technique. Elles sont apparues dans un milieu juridique peu préparé à la manipulation d'instruments documentaires sophistiqués et elles eurent beaucoup de difficultés à poursuivre leur croissance faute de clients et de moyens financiers suffisants[5]. Aussi le point marquant des banques de données juridiques a été le rapport demandé en 1983, par le Premier Ministre à Pierre LECLERCQ, Conseiller à la Cour d'Appel de Paris[13]. Il en résulte une réorganisation des banques de données juridiques désireuses de recevoir des subventions de l'Etat. Elles sont distribuées par un guichet unique JURIDIAL et par un même serveur Télésystèmes-Questel[15, 16, 10, 5].

Malgré cela, leur multiplicité, leurs disparités techniques et leurs insuffisances ont désorienté leurs utilisateurs virtuels. Le marché des banques de données juridiques reste complexe et leur utilisation insuffisante.

1. LA COMPLEXITE DU MARCHE FRANÇAIS DES BANQUES DE DONNEES JURIDIQUES

Malgré le rapport LECLERCQ, les banques de données juridiques françaises prolifèrent sur le marché du fait d'un grand nombre de producteurs. Mais elles diffèrent tant du point de vue de la forme de leur contenu que du mode d'accès.

1.1 Les producteurs de banques de données juridiques et leurs produits

Le marché est réparti en trois grandes catégories de producteurs : ceux qui sont commercialisés par JURIDIAL et qui proposent des banques de données juridiques générales, TELECONSULTE, qui refusa de rejoindre JURIDIAL sous peine de disparaître et enfin les banques de données juridiques limitées à un domaine du droit.

1.1.1 JURIDIAL commercialise les services de trois grands producteurs :

— le **CNIJ** (Centre National d'informatique juridique) rattaché au Journal Officiel. Il succède au CEDIJ créé à la suite d'une initiative du Conseil d'Etat. Le CNIJ propose 6 banques de données[16]. En plus des Cours Suprêmes (CASS, JADE), le CEDIJ permet l'accès aux sources du Droit : les codes (LEGI) et le Journal officiel (LEX). Les arrêts retenus sont le plus souvent publiés dans les différents recueils de jurisprudence. Les inédits ne sont pris en compte — après sélection — que depuis 1986/1987.

— **JURISDATA** (les Editions Techniques) propose une banque jurisprudentielle JURIS regroupant les arrêts publiés et inédits des Cours d'Appel de Paris (depuis 1971) et de Province (depuis 1972 pour les arrêts publiés et depuis 1986, 15 % des arrêts inédits). JURIS contient également des décisions des Cours suprêmes et des articles de doctrine (50 revues dépouillées)[8].

— Enfin **SYDONI** produit des banques de données-matières. Elles répondent à l'appellation d'Encyclopédie électronique préconisée par P. LECLERCQ[15], p. 58. 3 bases spécialisées sont proposées : Droit des techniques bancaires (BAN) réalisée par la Caisse Nationale de Crédit Agricole, et les banques de Jurisprudence Sociale (SOC) et de jurisprudence fiscale (TAX) réalisées par les Editions Francis LEFEBVRE.

Ces trois producteurs CEDIJ, JURISDATA, SYDONI, ont accepté les règles du rapport LECLERCQ, mais il n'en est pas de même pour TELECONSULTE.

1.1.2 TELECONSULTE est une filiale de la revue *Le Point*. Elle utilise le logiciel américain Lexis commercialisé par le serveur juridique américain Mead Data. Les données sont saisies en Asie du Sud-Est (Corée). Le rapport LECLERCQ prévoyait une spécialisation des banques de données afin d'éviter toute redondance des données. Or TELECONSULTE commercialise des banques de données qui couvrent le même champ documentaire que celles du CNIJ : l'intégralité des arrêts du Conseil d'Etat (CONSET depuis 1964), de la Cour de Cassation (CASSCI depuis 1959 pour les chambres civiles et commerciales, depuis 1970 pour la Chambre criminelle)[19]. TELECONSULTE-LEXIS offre également tous les accords et traités internationaux dont la France est signataire, même non encore ratifiés depuis *1564*, ainsi que 180 conventions collectives, 55 codes, les bulletins officiels de bon nombre de ministères, etc... Mais, surtout du fait de son installation sur le serveur américain, TELECONSULTE-LEXIS permet à partir du même logiciel d'accéder à la totalité de la jurisprudence américaine et anglaise voire néo-zélandaise ou australienne.

Il est bien évident au vu du contenu des banques de TELECONSULTE qu'il ne pouvait y avoir de commercialisation par JURIDIAL. P. LECLERCQ prévoyait d'ailleurs la disparition de TELECONSULTE [15, p. 68]

1.1.3 Les banques de données spécialisées

Elles sont nombreuses et il serait illusoire de vouloir les recenser toutes. Cependant on peut citer les plus importantes :

— **RESAGRI**, coproduite par le ministère de l'Agriculture, le Crédit Agricole et la Mutualité Agricole : Droit rural.

— **SIGAD** (Union des Industries métallurgiques et minières) : Droit social.

— **JURINPI** (Institut National de la Propriété Industrielle) : Droit des marques et des brevets.

— **INFOCIAL** (*Le Particulier*) : Droit social.

— **INFOGRAL** (Laboratoire du CNRS) : Droit des collectivités locales.

Un bon nombre de ces banques de données accessibles par Minitel ne valent pas la peine d'être citées tant leurs fonds documentaires sont décevants. Il existe donc une diversité des banques de données juridiques, mais également une complexité quant à leurs techniques d'enregistrement.

1.2 Les techniques d'enregistrement

Différentes techniques président à la constitution des banques de données.

1.2.1 Le texte intégral brut tel que le pratique TELECONSULTE. Le document primaire est enregistré tel qu'il se présente en ajoutant uniquement la référence pour retrouver la source. Ce système permet une grande rapidité de mise à jour (4 semaines environ) et une plus grande exhaustivité (pas de sélection). Sur le plan de la recherche, l'utilisateur posera sa question en vocabulaire ouvert[11, p. 37].

1.2.2 Le texte intégral enrichi.

Cette technique consiste à rajouter au texte brut enregistré intégralement, des éléments facilitant à la fois la recherche et l'interprétation. L'interrogation pourra se faire à partir de ces notions implicites ce qui permet à l'utilisateur d'apprécier plus rapidement la pertinence du texte.

C'est le mode de traitement utilisé par le CNIJ à l'exception de LEX, qui se présente sous forme de références bibliographiques.

1.2.3 L'abstract.

Cette méthode a été élaboré par l'IRETIJ (Institut de Recherches et d'Etudes pour le traitement de l'informatique juridique) de Montpellier. Elle a été adoptée par JURIDOC, JURINPI et JURISDATA, et est particulièrement adaptée au traitement des décisions des juges du fond qui sont très longues et mélangent les éléments de fait et de droit[11, p. 4]. La technique de l'abstract consiste à découper la décision en autant de paragraphes qu'il y a de points de Droit différents.

Pour faciliter sa compréhension, l'abstract est dans la plupart des cas accompagné d'un résumé en langage clair apportant des informations non intégrées à l'abstract.

1.2.4 Le résumé

La méthode suivie par SYDONI consiste en un résumé élaboré en langage clair, accompagné d'un titre de synthèse qui comprend les éléments d'identification du document et les problèmes juridiques posés. Le résumé reprend ces éléments de droit mais aussi les faits significatifs et la solution.

De plus, les documents de SYDONI sont indexés et le thesaurus contient les relations sémantiques : synonymie, hiérarchie, environnement, ce qui présente un avantage indéniable pour l'utilisateur.

La diversité des modes d'enregistrement des différentes banques de données juridiques : texte intégral, abstract, résumé, s'accompagne d'une multiplicité des accès à l'information.

1.3 L'accès aux banques de données juridiques

Plusieurs types de matériel sont possibles. Certaines banques de données sont accessibles par plusieurs d'entre eux. Cette possibilité a été envisagée par les producteurs pour atteindre un public plus large.

1.3.1 Le terminal asynchrone

Le plus souvent utilisé dans les années 80/83, relié par un modem au secteur commuté (le réseau PTT), il permet l'accès à l'ensemble des serveurs quelles que soient les vitesses de transmission (300, 1.200 ou 4.800 bauds)[20].

1.3.2 Le micro-ordinateur doté d'une carte modem, il permet toutes les connections aux serveurs, de plus il assure la possibilité de réaliser du télédéchargement des données afin de les gérer en local, à moindre coût, et permet de constituer ainsi sa propre banque de données.

1.3.3 Le Videotex est une révolution quant à l'accès aux banques de données par le grand public. Le kiosque multipalier assurera une utilisation plus étendue de l'information documentaire juridique. JURIDIAL et TELECONSULTE sont accessibles par Minitel. Certaines banques ne sont accessibles que par le Minitel (INFOCIAL, INFOGRAL).

1.3.4 Le CD-ROM[21] commence à percer sur le marché. Dans le domaine juridique Laser-Media commercialise DIOCLES (données juridiques de JURISDATA) et JURIDIAL associé aux éditions Jouve propose TVA 88. Les mises à jour sont prévues trimestrielles ou semestrielles, l'actualité reste accessible par l'intermédiaire de l'interrogation en ligne classique.

Le marché des banques de données juridiques français est donc riche, tant du point de vue de l'étendue des informations disponibles que par les moyens d'y accéder. Cependant, l'utilisateur semble réticent quant à leur utilisation.

2. LA MOROSITÉ DU MARCHÉ DES BANQUES DE DONNÉES JURIDIQUES

Le rapport LECLERCQ prévoyait rapidement 30.000 heures d'interrogation annuelle des banques de données juridiques françaises. L'état du marché montre qu'hélas ces chiffres sont loin d'être atteints. Les banques de données juridiques ne représentent qu'environ 8 à 9 % du marché français des banques de données. L'utilité des banques de données juridiques n'est plus à démontrer : rapidité d'accès à l'information, relative exhaustivité des références enregistrées. Aussi peut-on se demander quels sont les freins à une utilisation plus intensive. Ces obstacles sont d'ordre technique mais aussi d'ordre psychologique.

2.1 La relative complexité de l'accès à l'information

2.1.1. Complexité quant à la technique d'interrogation.

Pierre LECLERCQ était net lorsqu'il exprimait dans son rapport[15, p. 36] que "le même terminal, la même procédure de connexion, le même langage d'interrogation" devait donner accès à tout le catalogue des banques de données juridiques : "Une telle unification technique permettrait de lutter contre les diverses inégalités d'accès à la documentation juridique automatique".

Qu'en est-il dans la réalité ? L'harmonisation est toute relative. Certes l'on doit différencier les banques de données juridiques accessibles par JURIDIAL des autres. Le logiciel Questel + a harmonisé les procédures en théorie, mais chaque base a gardé sa spécificité : la recherche par les "liens" (fondement juridique) s'écrit de trois manières différentes, suivant les banques interrogées, ce qui risque de rebuter l'utilisateur occasionnel.

L'interrogation par les termes est également complexe. Il faut tenir compte de la polysémie des termes. Ainsi le terme "avoir" a une signification précise en Droit commercial mais il ne doit pas être confondu avec l'auxiliaire, et la machine ne fera pas la différence car elle recherche une chaîne de caractères, et si l'on ne prend garde, les résultats obtenus seront trop nombreux et peu pertinents : il y aura du bruit, l'interrogation doit donc être réajustée par des notions plus précises.

De même l'utilisation du texte intégral brut permet de poser une question en vocabulaire libre. L'utilisateur se heurte alors au problème des variations du vocabulaire juridique employé par le législateur et le magistrat : "Il faut une connaissance intime du langage de l'auteur du document recherché"[15, p. 25]. Certaines notions de droit ne sont pas explicitées et échappent ainsi à l'investigation, mais la richesse du texte permet à l'inverse, une grande souplesse quant aux points précis dont on veut savoir l'état de la jurisprudence.

2.1.2 Nécessité d'une bonne connaissance du fonds documentaire de chaque banque.

Il est nécessaire de savoir où trouver l'information et comment la trouver. Si la structure des Cours Suprêmes est toujours la même, il en est autrement pour les arrêts des Cours d'Appel et des autres juridictions. La structure en abstract, en résumé ou en mot clé, suppose une maîtrise du domaine mais aussi de l'interrogation.

Pour être productif, l'utilisateur ne doit pas être occasionnel mais doit fréquemment interroger. Sinon, il se décourage ou porte un jugement négatif au vu des médiocres résultats obtenus, alors que, par son inexpérience, il a laissé échapper l'information.

2.1.3 Les coûts des interrogations sont souvent dissuasifs.

Le juriste n'a pas l'habitude de payer directement son information. Les abonnements aux principales revues, l'achat d'ouvrages fondamentaux sont enregistrés dans les frais de gestion à moins d'avoir recours à une bibliothèque spécialisée !

De même le temps passé à constituer des dossiers, à chercher l'information, à l'analyser n'est pas comptabilisé car il n'a pas fait l'objet d'une facture et ils sont peu nombreux ceux qui chiffrent leur temps de travail ou celui de leur collaborateur.

Par contre, la facture présentée à la suite d'une interrogation rend tangible le coût de l'information et provoque un réflexe non pas de rejet, mais d'étonnement et de réflexion : les réponses obtenues valaient-elles ce prix.

Il est vrai que les banques de données juridiques françaises sont particulièrement onéreuses. JURIDIAL et LEXIS font payer soit un droit annuel (JURIDIAL), soit un abonnement mensuel (TELECONSULTE) qu'il faut amortir et qui s'ajoute au prix de l'interrogation. Cependant, la pratique aidant, une interrogation moyenne dure entre 5 et 20 minutes, et que représentent quelques centaines de francs au regard d'un procès, ou d'une affaire dont les enjeux financiers sont plus importants.

A ces facteurs d'ordre technique, qui sont une gêne à l'utilisation des banques de données juridiques, s'ajoutent les facteurs intellectuels et psychologiques.

2.2 Les freins psychologiques à l'utilisation des banques de données.

Le premier tient au contenu même des banques, le deuxième à la nature réservée du juriste, magistrat ou praticien.

2.2.1 Les lacunes des fonds documentaires.

On reproche aux banques de données juridiques deux types d'insuffisances : les documents enregistrés ne sont pas exhaustifs, et la couverture documentaire est incomplète, toutes les branches du Droit ne sont pas également représentées.

En effet, l'exhaustivité des banques de données est relative dans le temps et dans l'espace. Aucun producteur ne s'engage à donner la totalité de la documentation existante, mais le plus souvent il procède à des sélections dont malheureusement les critères échappent à l'utilisateur. De même, les banques de données ont un point de départ dans le temps et ce n'est qu'exceptionnellement qu'elles enregistreront des documents anciens car fondamentaux. C'est le cas du CNIJ qui reprend les arrêts célèbres antérieurs à la constitution de ses banques de données.

De même la couverture nationale n'est pas totale. Les différentes Cours d'Appel de province n'ont rejoint JURISDATA qu'en 1986 et les ateliers régionaux mis en place opèrent des sélections parmi les arrêts ; jugeant certains redondants ou peu intéressants ils les éliminent. Cette exhaustivité est relative certes, mais malgré cela, l'information offerte est beaucoup plus importante que celle à laquelle un simple particulier peut avoir accès par ses propres moyens. Peut-on parcourir rapidement les arrêts rendus par les 22 chambres de la Cour d'Appel de Paris ? Encore faut-il avoir accès aux arrêts pour la plupart inédits, et si cela était, le travail de lecture et de compréhension des textes demanderait un temps supérieur aux quelques secondes que met l'ordinateur pour lire et sélectionner les documents qui répondent à la question posée.

Cependant un problème se pose pour les juridictions de première instance car leurs décisions sont très peu retenues dans les banques de données. Or, ce sont elles qui auront d'abord à statuer sur les lois nouvelles. Il s'écoulera 6 à 7 mois avant que le contentieux arrive en Appel et soit enregistré donc connu. Il en va de même pour les Tribunaux administratifs. JADE ne retient que peu d'arrêts.

Les lacunes des fonds documentaires sont plus gênantes. En effet, le rédacteur des banques travaille en fonction d'un public à atteindre (avocat, magistrat...) de sorte que certaines branches du droit sont à peine couvertes.

Peu de Droit pénal est enregistré, sauf si l'arrêt est publié ou commenté dans une revue. Il en va de même pour le Droit de la santé publique : le juriste n'est pas intéressé par la matière. De même, le Droit communautaire est pratiquement absent des banques de données juridiques, seul TELECONSULTE commercialise les arrêts de la Cour de Justice et le Journal Officiel des Communautés européennes (série L). Depuis le 28 mars 1989, le CNIJ propose également les arrêts de la Cour de Justice des Communautés européennes. Il serait souhaitable que dans ce domaine les producteurs accentuent l'enregistrement du Droit communautaire en prévision du Marché unique de 1993.

A ces inconvénients d'ordre structurel s'ajoutent des restrictions psychologiques.

2.2.2 La réticence des professions judiciaires et juridiques

Le rôle des professions juridiques et judiciaires dans le développement des banques de données est tout naturel. Ce sont eux qui ont besoin quotidiennement d'informations juridiques et pourtant l'utilisation y est loin d'être ce que l'on est en droit de s'attendre. Certes le CEDIA (Centre de documentation informatisée pour les avocats auprès du Barreau de Paris) est le plus gros utilisateur des banques de données, il n'en reste pas moins que les initiatives individuelles sont restreintes.

Les causes structurelles précédemment évoquées rebutent l'utilisateur virtuel mais à cela s'ajoute la réserve propre à la profession. En effet, "la machine n'est pas appelée à évincer l'activité pensante de l'homme". L'informatisation ne doit pas dicter les solutions aux juristes sous peine de voir la profession se scléroser. Sans possibilité d'initiative, le droit serait figé et la profession d'avocat serait en déclin.

Il est donc nécessaire pour le juriste de maîtriser cette technologie dans un souci d'équilibre du système[12]. Le désarroi vient de ce que le juriste s'attend à trouver l'état du Droit positif et il n'en obtient que les sources. De même certains, très spécialisés, sont eux-mêmes source de Droit positif et les banques de données ne leur apportent aucune complémentarité. Ce qu'il ne faut pas oublier, c'est que les banques de données juridiques n'apportent que l'information et non les solutions : chaque cas étant particulier. Il y a place pour la dialectique, pour la discussion et le raisonnement car : "ce n'est pas celui qui a la connaissance qui prendra le pas sur l'autre, mais celui dont la capacité de raisonnement juridique sera supérieure"[13].

Ainsi franchis les obstacles structurels grâce à une harmonisation des banques de données tant de leur contenu que des procédures, le juriste suffisamment formé et informé sera un utilisateur éclairé de l'informatique juridique.

Les banques de données juridiques sont des **bibliothèques électroniques**, aspect moderne de nos encyclopédies juridiques traditionnelles, qui rassemblent sous une forme réduite de la taille d'un Minitel ou d'un micro-ordinateur, des millions de références. Ces **informations, fiables, sont abondantes** et couvrent largement les différentes branches du Droit à quelques exceptions près.

Le **logiciel permet un "feuilletage"** rapide des contenus tout comme les index des recueils de jurisprudence. L'apprentissage à son utilisation n'est pas plus complexe que celui de certaines tables récapitulatives.

Ce **formidable outil de travail** fournit extrêmement rapidement — en 5 à 20 minutes — des **documents précis, inédits** donc inaccessibles à toute personne en tout lieu, qui sait tirer partie de cette **richesse** grâce à un accès simplifié par l'usage du Minitel.

La documentation juridique automatisée doit devenir pour les juristes un acquis de leur culture.

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I - JURISPRUDENCE - JURISPRUDENCE CIVILE

	PRODUCTEUR	NOM DE LA BASE	DATE DE DEBUT	FORME	NOMBRE DE REF.	MISE A JOUR
COUR DE CASSATION	CNU (TS - Télésystèmes-Questel	CASS	Civ. Com : 1960 Crim : 1965 inédits 1970 + grands arrêts	texte intégral	non communiqué	non communiqué
	JURISDATA (Télésystèmes, Jurisdata)	JURIS	Cour de Cass	abstract		4 mois
	LEXIS/Téléconsulte (Mead Data)	PRIVE	Civ. 1/10/1959 Crim/ 1.01.1970	Texte intégral "	175 000 30 000	2 mois 2 mois
COURS D'APPEL	JURISDATA	JURIS	PARIS : 1971/1977 tous les arrêts . 1977 - 50 % PROVINCE : . 1972 - arrêts publiés dans les revues . 1980/1985 sélection d'inédits de 20 cours .1986 - 15 % dans A de toutes les Cours	abstract + résumé	267 000	2 mois
	LEXIS/Téléconsulte (Mead Data)	APPEL	Bordeaux, Lyon Montpellier depuis 1983	texte intégral	13 000	2 à 3 mois
AUTRES JURIDICTIONS	JURISDATA (TS)	JURIS	TGI, TI, Conseil Prud'homme	décisions publiées 1972		2 mois

2/ JURISPRUDENCE ADMINISTRATIVE

	PRODUCTEUR	NOM DE LA BASE	DATE DE DEBUT	FORME	NOMBRE DE REF.	MISE A JOUR
CONSEIL D'ETAT	LEXIS(Mead Data)	CONSET (intégralité)	1.10.1964	texte intégral	75 000	2 mois
	CNIJ (TS)	JADE sélection	Fiscal Recueil Lebon 1965 Général : inédit : 1983 Lebon : 1968 Grands arrêts publiés : 1976	texte intégral enrichi	non communiqué	non communiqué
TRIBUNAUX ADMINISTRATIFS	CNIJ (TS)	JADE sélection	LEBON 1971 sélection par les Tribunaux Versailles 1978 Grenoble et Clermont Ferrand 1984 environnement 1976	texte intégral	non communiqué	non communiqué
CONSEIL CONSTITUTIONNEL	LEXIS (M.D)	CONSTIT	4/12/58	texte intégral	1 000	2 mois
	CNIJ (TS)	CONSTIT	1958 + lettres de saisine	texte intégral enrichi	totalité des arrêts	mise à jour permanente
TRIBUNAL DES CONFLITS	CNIJ (TS)	JADE	publiés au Lebon depuis 1973	texte intégral enrichi	non communiqué	non communiqué
	LEXIS (M.D)		1.10.1964	texte intégral	600	1 mois

II - DOCTRINE 1/ DOCTRINE PRIVEE

	PRODUCTEUR	NOM DE LA BASE	DATE DE DEBUT	FORME	NOMBRE DE REF.	MISE A JOUR
DROIT SOCIAL	SYDONI (F. Lefebvre)	SOC	1972	résumé Thesaurus	36 000	1 mois
DROIT ET TECHNIQUES BANCAIRES	SYDONI (Caisse nationale de Crédit agricole)	BAN	1972	résumé Thesaurus	20 000	1 mois
DROIT FISCAL	SYDONI (F. Lefebvre)	TAX	1972	résumé Thesaurus	93 000	1 mois
SEMAINE SOCIALE LAMY	LEXIS (MD)	LAMY	4/2/80 (depuis l'origine)	texte intégral	4 000	1 mois
FICHIER BIBLIOGR. DE LA COUR DE CASSATION	CNUJ (TS)	DIVA	depuis 1970	références	50 revues analysées	non communiqué
DROIT PRIVE	JURISDATA	JURIS	depuis 1970 ou 1981	références analytiques	58 revues analysées	1 à 2 mois

2/ DOCTRINE ADMINISTRATIVE

	PRODUCTEUR	NOM DE LA BASE	DATE DE DEBUT	FORME	NOMBRE DE REF.	MISE A JOUR
MEDIATEUR (propositon de réformes)	CNUJ (TS)	DIVA	ORIGINE	Texte intégral	non communiqué	non communiqué
SCIENCE ADMINISTRATIVE (France et Etranger)	CERSA Univ. Paris (TS)	FRANCIS Administration	1972	Références Bibliogr.		variable
DROIT ADMINISTRATIF	CNUJ (TS)	DIVA	1970	Références	50 revues analysées	non communiqué
DOCTRINE COLLECTIVITES LOCALES	Laboratoire du CNRS (accès Videotex)	INFOGRAL		Références bibliographiques + résumé		mensuelle

III - LOIS, REGLEMENTS ET CONVENTIONS

	PRODUCTEUR	NOM DE LA BASE	DATE DE DEBUT	FORME	NOMBRE DE REF.	MISE A JOUR
JOURNAL OFFICIEL Lois et décrets	LEXIS (M.D.)	J.O	1.01.1955	texte intégral	160 000	1 semaine
	CNIJ (TS)	LEGI	Jusqu'en 1987 sélection	texte intégral	non communiqué	non communiqué
	Secrétariat général du Gouvernement (TS)	LEX	origine	références (chaînage des textes)	252 000	72 heures
CODES	LEXIS (MD)	CODES	55 codes	texte intégral	60 000	mise à jour permanente
	CNIJ (TS)	LEGI		texte intégral enrichi		mise à jour permanente
CONVENTIONS COLLECTIVES	LEXIS (MD)	Conventions Collectives	180 conventions nationales	texte intégral	4 500	mise à jour permanente
BULLETINS OFFICIELS	LEXIS (MD)	Bulletins Officiels	Aff. sociales DGI-Travail Urbanisme, Transport Intérieur etc... 1955 ou 1970	texte intégral Entre1955 ou 1970	26 000	4 à 6 semaines
	CNIJ (TS)	LEGI	Textes relatifs à certains domaines : Affaires, fiscal, social environnement, Coll. locales	texte intégral	non communiqué	non communiqué
TRAITES bilatéraux et multilatéraux dont la France est signataire	LEXIS (MD)	INTNAT	30.10.1564	texte intégral	5 500	mise à jour permanente

	PRODUCTEUR	NOM DE LA BASE	DATE DE DEBUT	FORME	NOMBRE DE REF.	MISE A JOUR
AVANCEMENT DES TEXTES LEGISLATIFS	Assemblée Nationale (TS)	Process	Juil 81	Réf	2 400 unités	quotidienne
QUESTIONS POSEES PAR LES SENATEURS	SENAT(SINORG)	OS O 1		références	45 000	une semaine
TEXTES DIFFUSES	SENAT (SINORG)	SENAT	Avr-78	-	8 000	1 mois
INTERVENTIONS EFFECTUEES AU SENAT en séance publique	SENAT (SINORG)	SINT	Avr-78	-	20 000	1 mois
QUESTIONS PARLEMENTAIRES (J.O. Débats)	Assemblée Nationale (TS)	Questa 6 Questa 7 Questa 8	2 Avr-78 (6e législature)	- avec loc. au JO	Q6 47 800 Q7 83 450 Q8 7 922	3 jours
AVANCEMENT DES TEXTES LEGISLATIFS	SENAT (TS)	PARL		Références	5 000	1 semaine

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18 7 depuis le 28 mars 1989, puisque les utilisateurs peuvent accéder aux arrêts de la Cour de Justice des Communautés Européennes.

19 L'intégralité des arrêts proposés par les magistrats des Cours suprêmes, ce qui ne veut pas dire intégralité des décisions rendues. Le CNIJ effectue une sélection sur les arrêts communiqués. TELECONSULTE-LEXIS enregistre l'intégralité des arrêts proposés.

20 Le BAUD est la vitesse de transmission : 1.200 bauds = 120 caractères par seconde.

21 Compact Disc Read Only Memory.

66-ADM-3-F

L'Accès à l'information administrative

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INTRODUCTION

Pourquoi un exposé sur l'accès, en France, à l'information administrative dans un Congrès international de bibliothécaires ?

Il y a peut-être deux raisons :

1. Tout d'abord, l'accès à l'information administrative n'est pas qu'un problème de relations juridiques entre l'administration et les administrés qui lui demandent communication d'une information administrative.

C'est aussi un problème non pas juridique mais *pratique*, de circulation non contentieuse de l'information par le canal, notamment, des bibliothèques administratives et des centres de documentation rattachés aux grandes collectivités publiques.

Cet aspect bibliothéconomique de l'accès aux documents administratifs ne sera pas traité ici. Nous nous pencherons au contraire sur l'aspect "pathologique" de cette matière, c'est-à-dire sur les règles qui ont été édictées pour développer l'accès *individuel* et quelquefois *contentieux* à l'information administrative.

2. Il y a peut-être une deuxième raison qui expliquerait la présence de ce thème dans les débats de l'IFLA : cette année, la France célèbre le 200ème anniversaire du déclenchement de la Révolution française et de la Déclaration des Droits de l'Homme. Or celle-ci dans son article 15, affirme que "la société a le droit de demander compte à tout agent public de son administration". Examinons donc quelles applications le système juridique français réserve actuellement à ce principe.

1. L'ACCES A L'INFORMATION ADMINISTRATIVE ET SES ANTECEDENTS

1.1. L'influence des modèles étrangers

La France n'a pas le monopole de l'innovation juridique dans cette matière. Elle s'est au contraire inspirée d'exemples étrangers ou a montré la voie dans d'autres cas.

1. Il faut tout d'abord noter que deux organisations internationales, le Conseil de l'Europe, essentiellement, et, accessoirement la Commission des Communautés Européennes ont pris diverses dispositions relatives à la communication de l'information administrative, au sens large.

2. Mais les références hors des frontières proviennent essentiellement de certaines législations étrangères, dans la plupart des pays occidentaux. En oubliant un grand nombre de pays, contentons-nous de citer la loi suédoise de 1766 sur la liberté de la presse dont une disposition pose le principe, avec valeur constitutionnelle, de la transparence du gouvernement et de l'administration. N'omettons pas non plus de citer l'initiative du Land de Hesse, en République Fédérale d'Allemagne qui a élaboré en 1970 une législation sur l'informatique et les libertés. Enfin, n'oublions pas d'évoquer, aux Etats-Unis, le *Freedom of Information Act* de 1966 (complété en 1974) pour l'accès des citoyens américains à l'information et le *Privacy Act* de 1974 pour la protection de la vie privée et le contrôle des fichiers.

1.2. Les caractéristiques et les dysfonctionnements des structures administratives françaises.

En effet, la législation française en faveur de l'accès à l'information administrative ne s'explique pas uniquement par l'influence des modèles étrangers. Elle provient aussi des caractéristiques et des dysfonctionnements des structures administratives françaises :

1. Tout d'abord, l'Etat — tel qu'il existe en France — et son administration sont les héritiers d'une tradition — quoique indispensable à la construction de la France — de centralisation, d'opacité, de sujétion des administrés qui remonte à l'Ancien Régime, voire au XIVe siècle. La Révolution française que l'on célèbre aujourd'hui, n'a en aucun cas aboli cet état des choses. La Révolution française s'est contentée de moderniser et de donner une nouvelle efficacité à ces principes.

De même, les fonctionnaires ont toujours été et restent toujours soumis à l'obligation de discrétion professionnelle vis-à-vis des administrés.

2. La deuxième observation que l'on pourrait faire est que, contrairement à d'autres exemples étrangers — notamment les pays anglo-saxons — le contentieux entre les citoyens français et leurs administrations est réglé par un corps de règles spécifiques (le droit administratif). De même, les litiges sont tranchés par un ordre de juridiction différent des juridictions pour les litiges entre personnes privées : ce sont notamment les tribunaux administratifs et le Conseil d'Etat.

Et l'administration jouissait et jouit de prérogatives exorbitantes du droit commun des citoyens.

3. Toutefois — et c'est la troisième observation — il existe depuis longtemps, comme antidote à cette situation, un certain nombre de mécanismes correcteurs : les procédures des questions au Gouvernement émanant des parlementaires, les Commissions d'enquêtes parlementaires. On peut citer aussi la publication des principaux textes au *Journal Officiel* et l'existence d'une administration (la Documentation française) spécialement chargée d'éditer et de diffuser notamment les publications officielles et les rapports.

Enfin, dernier facteur correcteur : l'évolution de la jurisprudence du Conseil d'Etat : celui-ci, en effet a anticipé les réformes sur l'accès à l'information administrative, réformes que nous allons examiner maintenant.

2. L'ACCÈS A L'INFORMATION ADMINISTRATIVE ET SES DISPOSITIONS

Seront examinées successivement les 3 lois concernant directement ou indirectement l'accès à l'information administrative, c'est-à-dire la loi sur l'informatique, la loi sur la liberté d'accès aux documents administratifs et la loi sur la motivation des actes administratifs.

2.1. La loi du 6 janvier 1979 relative à l'informatique, aux fichiers et aux libertés.

On peut examiner le champ d'application de la loi, les obligations des détenteurs de fichiers et les droits des personnes fichées.

1. Le champ d'application :

La loi concerne les fichiers d'informations nominatives relatives à des personnes physiques. Il s'agit aussi bien de fichiers manuels ou mécanographiques, que de fichiers informatisés.

La loi pose des principes concernant aussi les fichiers appartenant à des personnes physiques ou morales de droit privé mais les dispositions de la loi concernent en réalité les organisations participant à un service public, c'est-à-dire l'Etat et ses différents ministères et démembrements, les collectivités territoriales, les établissements publics à caractère administratif et les personnes morales de droit privé gérant un service public (comme les caisses de Sécurité Sociale).

2. Les obligations des détenteurs publics de fichiers :

Une autorité administrative indépendante, c'est-à-dire une personne morale de droit public indépendante des autorités administratives de l'Etat est créée : c'est la CNIL (Commission Nationale de l'Informatique et des Libertés). Cette commission a un triple rôle :

a) elle examine les projets de création de fichiers, la plupart du temps des fichiers informatiques, et vérifie leur conformité aux principes de liberté et de protection des individus fichés posés par la loi.

b) le 2e rôle de la CNIL est d'arbitrer entre les requêtes des intéressés et les positions prises par l'administration concernée, d'adresser des avertissements à l'administration ou d'engager éventuellement des poursuites pénales.

c) Par ailleurs la CNIL sert d'intermédiaire obligatoire quand le citoyen veut connaître des informations sur des fichiers intéressant les domaines sensibles de la sûreté de l'Etat et du contre-espionnage.

d) enfin, la CNIL a une fonction de normalisation, et élabore des modèles-types : les normes simplifiées.

3. Les droits des personnes fichées

Si on se penche maintenant sur le 3e point de cet exposé sur la loi sur l'informatique, à savoir les droits des personnes fichées, ces droits sont essentiellement au nombre de deux :

a) le droit à l'information préalable des projets de création de fichiers susceptibles d'insérer des données nominatives. Ainsi les données concernant les origines raciales, les appartenances syndicales, les opinions politiques, philosophiques ou religieuses sont prohibées sauf une exception très circonscrite. Ces administrations sont ainsi tenues de publier les actes administratifs autorisant la création de fichiers.

b) 2e droit des personnes fichées : le droit individuel d'accès et de rectification qui comporte des aménagements particuliers ou des restrictions quand il s'agit d'informations touchant à la défense nationale, la sécurité publique, les activités de contre-espionnage ou en matière médicale.

2.2. La loi du 17 juillet 1978 dont le titre 1er concerne la liberté d'accès aux documents administratifs.

Nous examinerons successivement le champ d'application de la loi, la nature du droit d'accès et enfin la procédure de mise en œuvre de ce droit d'accès.

1. Le champ d'application de la loi :

La loi couvre les documents administratifs de toute nature (elle en donne une définition détaillée à l'exclusion des actes préparatoires, émanant de personnes publiques et assimilées) avec la même définition des personnes publiques que pour la loi sur l'informatique évoquée précédemment.

Cette loi sur l'accès aux documents concerne les documents non nominatifs et, depuis la loi de 1979 sur la motivation que nous examinerons après l'étude de la présente loi, cette loi concerne aussi les documents nominatifs.

2. Le droit d'accès :

Le droit d'accès aux documents non nominatifs est ouvert à tous. Pour les documents nominatifs, il n'est, logiquement, ouvert qu'à la personne concernée. D'autre part, l'accès aux documents médicaux personnels ne peut se faire que par l'intermédiaire d'un médecin choisi par la personne concernée.

La loi comporte 8 exceptions au droit général d'accès aux documents nominatifs. Parmi ces 8 exceptions, nous citerons le secret des délibérations du pouvoir exécutif, le secret de la Défense Nationale et de la politique diplomatique, le secret de la politique économique et financière, le secret des procédures judiciaires, etc.

A la suite de cette disposition les gouvernements successifs ont engagé les différents ministères à publier la liste des documents de leur administration, communicables ou non, et actuellement toutes les listes ministérielles ont été établies.

3. La procédure de mise en œuvre du droit d'accès :

Comme pour la loi sur l'informatique précédente, il est instauré une autorité administrative indépendante : la CADA (Commission d'accès aux documents administratifs). En simplifiant à l'extrême son rôle, on pourrait dire qu'elle est instaurée

pour servir d'intermédiaire entre le requérant, personne privée, et l'administration, à qui le requérant a demandé un document administratif.

La procédure prévue par la loi prévoit des règles de délais accordés à l'administration pour communiquer les documents. Son silence à l'issue d'une période de 2 mois vaut décision tacite de rejet dont la CADA peut être saisi par le demandeur.

La CADA doit obligatoirement statuer avant que le demandeur ne saisisse le juge administratif. D'autre part un décret du 28 avril 1988 a réduit la durée de l'ensemble de la procédure (6 mois au total).

Par ailleurs il faut indiquer que la loi reconnaît à toute personne un droit de réponse, c'est-à-dire le droit de faire consigner ses observations dans le document communiqué.

Enfin, pour être exhaustif, on ne peut oublier de mentionner l'existence et le rôle de la Commission de coordination de la Documentation administrative créée en 1971 et réformée en 1985 et 1989. Cette commission a préparé et accompagné les réformes évoquées ici et a été à l'origine d'une politique de coordination de l'informatique et de la bureautique dans l'administration et d'une politique visant à rendre sa cohérence à la production de banques de données juridiques.

2.3. La loi du 11 juillet 1979 relative à la motivation des actes administratifs et à l'amélioration des relations entre l'administration et le public.

Cette loi n'a pas prévu la présence d'une commission indépendante, comme les deux précédentes lois, pour contrôler l'usage qui est fait par l'administration de ses obligations légales.

La loi n'instaure pas une obligation générale de motivation qui a été estimée par le législateur comme insupportable à la conduite normale de la gestion administrative et qui conduirait les fonctionnaires à assortir les décisions de considérants de pure forme.

La motivation est donc limitée aux décisions administratives individuelles, défavorables ou dérogatoires.

La loi a donné la liste des catégories de décisions concernées : indiquons tout de suite qu'il s'agit pour une part de la consécration, par voie législative, d'avancées jurisprudentielles et, pour une autre part, de novations ou de généralisations de principe, qui consacrent les progrès de l'Etat de droit et qui ne pouvaient être réalisées que par voie parlementaire.

Ces catégories de décisions sont notamment : les décisions qui restreignent l'exercice des libertés publiques (comme par exemple la déchéance de la nationalité française), les décisions qui constituent une mesure de police ou infligent une sanction, les décisions qui retirent ou abrogent une décision créatrice de droit.

Il existe aussi une catégorie complexe à définir juridiquement : les décisions qui refusent un avantage dont l'attribution constitue un droit pour les personnes qui remplissent les conditions légales pour l'obtenir.

Il faut ajouter que les décisions entrant dans le cadre des exceptions de la loi précédente sur l'accès aux documents administratifs (tels que les documents concernant la défense nationale, etc.) n'ont pas à être motivées. Ceci n'est pas regrettable car demander la motivation d'un texte couvrant ces domaines serait la plupart du temps demander la motivation d'un texte réglementaire. Or, la motivation est intéressante à connaître surtout quand il s'agit de décisions individuelles. Une loi du 17 janvier 1986 a ajouté aux catégories de décisions devant être motivées les décisions refusant l'attribution d'aides ou de subventions dans le cadre des activités sanitaires et sociales.

Signalons enfin qu'en cas d'urgence absolue, l'obligation de motivation peut être reportée à un mois.

3. L'ACCÈS A L'INFORMATION ADMINISTRATIVE ET SA PORTEE

3.1. Dispositions complémentaires

Il faut indiquer tout d'abord que diverses dispositions complémentaires ont prolongé en France les aspects positifs de ces trois lois.

Elles touchent différents domaines : notamment la consultation des archives, l'accès des intéressés à leur casier judiciaire, la démocratisation des procédures en matière d'urbanisme.

Signalons surtout un décret du 28 novembre 1983 concernant les relations entre l'administration et les usagers.

Ce décret important prévoit notamment l'obligation pour les administrations de l'Etat d'accuser réception des requêtes des administrés et de leur donner tout renseignement sur le service chargé de l'instruction de la requête, les délais de recours, etc.

Le décret prévoit aussi l'opposabilité des circulaires et directives, ce qui est nouveau et prévoit une ébauche de participation de l'administré à l'élaboration de certaines décisions administatives.

3.2. Des progrès restent à accomplir.

En premier lieu, il faut rappeler que ces lois et leurs décrets d'application ont été globalement respectés. Contrairement à ce que l'on pourrait croire, une extension de la portée de ces lois, dont l'intérêt réside dans leur mesure, ne serait pas utile. Toutefois quelques réformes pourraient être les bienvenues : un allégement des procédures de la loi sur l'informatique ; une extension du décret de 1983 aux collectivités locales, voire une fusion de la CNIL et de la CADA.

CONCLUSION

En guise de conclusion, l'on pourrait énoncer quelques remarques générales.

1. Tout d'abord, et pour évoquer à nouveau la Déclaration des Droits de l'Homme et du Citoyen, il faut se demander si ces trois lois ne constituent pas une 3e génération de droits de l'homme après l'affirmation des droits civils et politiques en 1789 et après l'affirmation des droits sociaux et économiques du *Préambule* de la *Constitution française* d'octobre 1946.

Il s'agirait ainsi d'un corps de règles modernes pour gérer la vie de citoyens adultes à qui l'on confierait une parcelle de la décision administrative. Ce serait une ébauche d'administration concertée et peut-être de nouvelles libertés publiques.

2. Il faut ensuite rappeler que l'interlocuteur naturel du citoyen à la recherche de documents, par exemple communaux, ce n'est pas une bibliothèque, mais la Mairie de sa commune.

Par ailleurs, en France comme à l'étranger, nous vivons sous le régime d'une fiction juridique que stipule l'adage : "Nul n'est censé ignorer la loi", qui est à l'évidence inapplicable.

Dès lors, malgré l'importance des lois que nous venons d'évoquer, leur utilisation sera probablement limitée à l'administré le plus averti et échappera à tous les autres citoyens.

3. Pour finir, nous dirons que les efforts de développement de l'information administrative sont à rapprocher du problème de la réforme de l'administration. L'histoire administrative de la France est ainsi jalonnée de tentatives plus ou moins infructueuses de lever le secret d'Etat ou d'obtenir une condamnation de ses impéritie.

Souhaitons donc pour finir, que le citoyen français, tel Sisyphe, ne soit pas condamné sans cesse à remonter le rocher jusqu'en haut de la montagne.

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Dans la communauté des sciences sociales, qui bénéficie des Nouvelles Technologies de l'Information (NTI) ?

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ABSTRACT

The New Information Technologies are beneficial to the social science community, but not all partners receive an equal share of these benefits. OPACs are advantageous to users ; they may be costly for the managers of libraries, but are gratifying to the librarians. CD-ROMs are decisively user-oriented ; they offer to publishers a welcome new means for distributing their editorial products ; but they are not always easy to instal in libraries. Online data banks are still expanding, as they provide unrivalled services, even when these have to be paid for by users. Acting as intermediaries, libriarians enjoy a moral satisfaction. Carriers of information derive substantial profits from the traffic on telecommunication networks. Electronic publishing is beneficial to the production of primary documents, but is challenging writers, editors and publishers.

Les bibliothèques et autres services documentaires de sciences sociales sont rarement utilisés autant et aussi rationnelle-

ment que les bibliothécaires ne le jugeraient normal. Toutes les enquêtes d'utilisation le confirment[1], les explications de cette situation diffèrent. Les uns incriminent le fait que l'on ait organisé les services d'information des sciences sociales sur le même modèle que ceux des sciences "dures", alors que les structures mêmes des connaissances et des informations sont différentes dans les deux domaines[2]. Ils soulignent que les spécialistes de ces disciplines ne les font pas progresser en s'appuyant constamment sur les résultats acquis par leurs devanciers, qu'ils ne disposent pas d'un ensemble de théories faisant l'objet d'un consensus, qu'ils parviennent rarement à raisonner en termes universels, que leurs pratiques en matière de citations ne sont pas régulières, etc. Certains pensent que ce sont surtout les utilisateurs qui sont mal formés, n'ayant pas été habitués durant leurs études à rechercher systématiquement les informations dont ils ont besoin, et à traduire leurs besoins en demandes. Certains insistent sur la différence entre les utilisateurs relevant du monde universitaire, relativement peu nombreux, même en y incluant les étudiants, et tous ceux qui ont besoin d'information ou de données pour des activités pratiques : comment satisfaire à la fois ces deux publics ?

Quoi qu'il en soit, il faut se demander si l'adéquation entre l'offre et la demande peut être améliorée par le recours aux Nouvelles Technologies, dont l'emploi par les différents services d'information se généralise rapidement. On utilise ici l'expression "Nouvelles Technologies de l'Information" parce qu'elle est entrée dans l'usage courant, bien qu'il s'agisse souvent de techniques de communication ou de télécommunication, et sans chercher à en délimiter précisément le contenu, ce qui malheureusement a rarement été fait. Il reste vrai que l'électronique nous a dotés, depuis relativement peu d'années, de moyens de travail considérablement plus puissants que ceux dont nous disposions auparavant, et c'est l'usage que nous en faisons qui est ici mis en cause.

[...] Les occasions d'examiner les effets de ces NTI dans des institutions de sciences sociales n'ont pas encore été nombreuses. Nous devons souvent nous contenter d'extrapoler à notre domaine des constatations faites ailleurs. Cela est légitime. Ce qui nous définit principalement, c'est de travailler dans un des secteurs des "sciences", où l'enjeu est la production, la diffusion et l'exploitation de la connaissance et de l'information. L'épithète "sociales" ajoute une caractéristique complémentaire.

Même dans notre secteur un peu défavorisé des sciences sociales, il y a déjà des années que l'on a introduit les techniques de bases de données et que l'on a fait évoluer vers cette forme nouvelle les traditionnels catalogues. On a ainsi acquis une expérience suffisante des catalogues accessibles en ligne au public (OPAC) pour que l'on puisse commencer à évaluer les avantages qu'ils procurent. Qu'ils soient globalement utiles, c'est l'évidence. La question est de savoir à qui ils le sont le plus, et comment sont répartis les bénéfices qu'ils procurent.

Le titre de cette communication engage à poser cette question par référence à la "communauté des sciences sociales". Ce n'est pas le lieu de discuter en profondeur de cette notion, et des sociologues pourraient mettre en doute l'existence réelle d'une telle communauté. Mais son évocation oblige à prendre en considération tous ceux qui sont parties prenantes au processus multiforme de création des connaissances et des informations relevant des sciences sociales, de leur communication et de leur conservation, de leur mobilisation et de leur utilisation. Ce sont donc les auteurs, qu'ils soient chercheurs ou praticiens ; les lecteurs et demandeurs d'information, qui sont d'ailleurs souvent les mêmes que les précédents, en un autre moment de leur activité ; les étudiants en particulier, clientèle la plus nombreuse de beaucoup de bibliothèques ; les éditeurs, intermédiaires nécessaires entre les auteurs et leur public, ainsi que tous ceux qui contribuent à la production et à la diffusion des "objets culturels" qui véhiculent l'information scientifique, livres, revues, rapports, thèses, supports audiovisuels ; les bibliothécaires et documentalistes qui collectent, analysent, conditionnent ces documents pour que l'information soit plus facilement mise à portée de ceux qui en ont besoin, et aussi les industriels de l'information, qui exploitent les gisements documentaires, gèrent les banques de données, rendent opérationnels les centres serveurs et les réseaux de communication.

Ces industriels ont, bien sûr, d'autres motivations que les précédents. Mais ils font partie du même système global, celui de l'information des sciences sociales. Ils contribuent à le rendre efficace, en y apportant leur dynamisme d'entrepreneurs, soutenu par leur recherche du profit. Ils ont intérêt au bon fonctionnement du système, au même titre (mais pour de tout autres raisons) que les plus désintéressés des savants — de même que l'éditeur ayant publié un livre spécialisé a intérêt à ce qu'il connaisse la diffusion la plus large possible, tout autant que l'auteur lui-même. Cette solidarité globale entre tous ceux qui appartiennent au même système n'exclut pas la possibilité de tensions ou de conflits entre eux. Elle est néanmoins la clé de voute du système lui-même et justifie sa pérennité.

Ce système doit vivre au milieu de beaucoup d'autres dans l'univers social et défendre ses intérêts (ceux de l'information des sciences sociales) en face d'autres qui privilégient des valeurs différentes. Il en est ainsi des fabricants, dont l'objectif est de vendre pour augmenter leur chiffre d'affaires et leurs profits. En face d'eux, les communautés culturelles sont en position de clients, qu'il s'agisse d'acheter du mobilier de bibliothèques ou des machines à écrire, du matériel informatique ou du logiciel. Ils exercent sur elles la pression de l'offre, et il peut se faire parfois que leur puissance de persuasion conduise certains de leurs clients à s'équiper davantage qu'il ne serait nécessaire, ce qui ne sert l'intérêt de personne dans la communauté considérée.

Tel n'est cependant pas le cas des OPAC, pour en revenir à eux. Leur installation résulte d'une démarche volontaire ; ils sont comme le point culminant de l'informatisation d'une bibliothèque, celui où elle engage le dialogue "en ligne" avec ses lecteurs pour leur offrir un service plus performant. Or, cet espoir n'est pas fallacieux. On constate que la majorité des lecteurs sont satisfaits du nouveau moyen d'accès aux documents qu'on leur propose, même s'ils n'en font pas d'emblée le meilleur usage. Peut-être leur satisfaction vient-elle pour une petite part de la composante ludique d'une consultation sur écran. Plus sérieusement la majorité des utilisateurs sont maintenant habitués à rencontrer partout un écran-clavier ; ils ne sont pas déroutés en en manipulant un de plus comme l'étaient leurs grands frères contraints de fréquenter cet objet étranger à toute pratique quotidienne qu'est un catalogue sur fiches.

Sans doute aussi trouvent-ils dans l'OPAC ce qu'ils cherchent, plus facilement et plus vite qu'autrefois. Ils ne sont pas pour autant prémunis contre tous les obstacles. Une récente enquête[3] a décrit ceux que rencontrent les usagers de la Bibliothèque Publique d'Information à Paris, soit qu'ils sachent mal poser les questions et interpréter les réponses qu'ils reçoivent, soit qu'ils tombent dans un des nombreux pièges que continuent à leur tendre des logiciels pourtant soigneusement étudiés pour être "conviviaux". Or, il s'agit des catalogues GEAC et LISE, qui sont sur le marché actuel parmi ceux qui jouissent de la meilleure réputation. Beaucoup reste à faire pour humaniser les nouvelles technologies !

Cet exemple est pour nous intéressant parce que les deux tiers des lecteurs de la BPI sont des étudiants. On peut donc penser qu'ils ne réagiraient pas bien différemment dans la section sciences sociales d'une bibliothèque universitaire, s'ils pouvaient plus largement y être accueillis dans la région parisienne. Ils tirent profit de l'OPAC là où ils peuvent y accéder, et ce service jusqu'à nouvel ordre leur est partout offert gratuitement, comme une nouvelle forme des traditionnels fichiers. Est-ce en faisant porter par d'autres un poids plus lourd de travail et de dépenses ? Ce sont ici les bibliothécaires qui sont concernés, ayant la charge de créer et de gérer le catalogue.

Le bilan doit alors être nuancé. La production d'un catalogue accessible en ligne demande des moyens informatiques assez puissants, et donc des investissements et des frais de maintenance élevés. Les avantages que les gestionnaires de la bibliothèque peuvent en attendre sont qualitatifs, et se résument dans un meilleur service rendu. Ils doivent accepter de ne pas voir diminuer leurs dépenses, au moins pendant plusieurs années. Les économies générées par une plus grande rationalisation du travail sont au mieux absorbées par la nécessité de faire face à des tâches nouvelles et la possibilité de fournir des produits et des prestations améliorés.

Les capacités du système informatique nécessaire permettent de faire bien plus que de gérer des notices de catalogage. Le plus souvent elles sont mises à profit pour reprendre des notices fournies par de grands réservoirs bibliographiques, comme il en existe plusieurs en Amérique du Nord, et maintenant en Europe. Cette pratique qui se répand du catalogage dérivé a d'importantes conséquences. Elle demande que soient

surmontées les difficultés initiales, créées particulièrement par des différences entre les formats informatiques et la nécessité de mettre au point des programmes de conversion de l'un dans l'autre. Mais ensuite elle offre les avantages du catalogage partagé, en supprimant le gaspillage de compétences que représente le catalogage original du même document dans de nombreuses bibliothèques en même temps. Elle permet donc des économies de temps substantielles, libérant partiellement les bibliothécaires pour des tâches plus productives et plus utiles aux lecteurs. Elle conduit à modifier la répartition du travail, en faisant participer au catalogage d'autres catégories de personnel, et en induisant pour tous la nécessité d'une formation permanente qui contribue à leur développement professionnel. Il est possible que ces avantages soient acquis au prix d'une simplification du catalogage qui amoindrit parfois sa qualité technique ; mais on n'a jamais constaté que les lecteurs en souffrent ; la seule victime serait alors le souci de perfectionnisme auquel quelques bibliothécaires ont de la peine à renoncer.

Ces développements techniques, qui à la fois donnent des facilités nouvelles aux lecteurs et peuvent rendre plus enrichissant le travail des bibliothécaires, sont soutenus par l'intervention d'autres technologies, notamment celle des mémoires optiques. La réalisation la plus marquante dans notre domaine est actuellement le CD-ROM, apparu sur le marché il y a moins de cinq ans, mais qui tient déjà une place importante dans l'équipement informatif des pays les plus avancés. D'ailleurs, un des deux catalogues de la BPI mentionnés plus haut, LISE, est en réalité offert à la consultation par un CD-ROM, sans que la grande majorité des lecteurs observe une différence avec un vrai catalogue en ligne. Il est même plus "convivial" que GEAC. Sa seule faiblesse, que très peu ressentent, est que sa mise à jour n'est pas immédiate et qu'il ne permet pas d'accéder aux documents les plus récemment catalogués.

Accueilli favorablement par les utilisateurs, le CD-ROM voit son marché s'élargir rapidement, surtout aux Etats-Unis et au Japon, avec quelque retard en Europe. Il n'est pas encore répandu dans les pays en développement, mais les études qui y ont été conduites font prévoir qu'il y sera particulièrement utile, en affranchissant les utilisateurs de diverses contraintes techniques et économiques. Le nombre de CD-ROM déjà commercialisés augmente de plus en plus vite ; en ce début de 1989, on estime qu'il dépasse 500, dont plusieurs dizaines relèvent des sciences sociales : des banques de données bibliographiques, des données économiques et sociales, des informations financières, des textes juridiques ou réglementaires ou normatifs, etc. Bien entendu, les sciences sociales sont aussi concernées par des produits couvrant un champ plus large, comme des encyclopédies, des catalogues de bibliothèques nationales ou le catalogue collectif des publications en série (disque français Myriade).

Qu'y gagnent les bibliothécaires ? La satisfaction morale d'offrir un service apprécié à leurs lecteurs peut dans certains cas être un peu ternie par la constatation de la facilité avec laquelle ceux-ci parviennent à se passer de leur entremise et par la crainte de devenir moins utiles. Leur participation en tant qu'opérateurs ne va pas plus loin, puisque le CD-ROM leur est apporté comme un produit tout fait, en face duquel leur seule initiative peut être celle du choix.

Il en va autrement si on les considère en tant que gestionnaires de services documentaires. En cette qualité ils peuvent être sensibles aux charges nouvelles qui pèsent sur eux. La principale n'est pas représentée par les dépenses d'équipement, le prix d'un appareil de lecture étant d'ores et déjà modéré, mais par le coût de l'abonnement à chaque disque et de la concession d'une licence pour son utilisation. En outre, cette industrie étant encore dans son adolescence, on constate que ses produits ne sont pas d'une exploitation aussi facile que la seule logique le ferait espérer[4]. En particulier, la normalisation de la fabrication demeure incomplète, et il est parfois impossible d'interroger sur le même appareil des disques d'origines différentes dont les logiciels d'application sont incompatibles.

L'enthousiasme le plus grand pour ce nouveau média est apparemment celui des producteurs. Beaucoup de sociétés investissent dans ce "créneau", même dans des pays où le marché est encore étroit comme la France, en se spécialisant soit dans l'ingénierie logicielle, soit dans la préparation et la saisie des données (textes et images), soit dans la fabrication des disques eux-mêmes. Il faut notamment remarquer l'implication de grands éditeurs, comme Pergamon, Bertelsmann, Springer Verlag, Bowker, Hatier, Hachette, ou d'imprimeurs comme Jouve. Ils y trouvent un nouveau moyen de diffusion particulièrement adapté à des produits de grand volume et demandant des mises à jour répétées, comme des encyclopédies, des recueils de jurisprudence, des banques de données économiques ou financières, etc. Ils en escomptent naturellement des profits d'autant plus prometteurs que le coût de reproduction des disques est très faible et que des bénéfices importants sont assurés à partir du moment où les frais de préparation et de fabrication ont été amortis par la cession d'un nombre relativement peu élevé d'exemplaires. Encore faut-il atteindre ce seuil, ce qui actuellement n'est pas toujours garanti. En-deçà, l'hésitation reste grande entre les divers critères possibles d'une politique tarifaire. Les prix demandés par les fournisseurs actuels paraissent calculés en fonction de leurs conjectures sur la réponse de leurs clients plus que de leurs frais de production et de la valeur intrinsèque de leurs produits. L'offre et la demande ont encore quelque peine à se rencontrer.

Certains pensent que la montée en puissance de ces nouveaux médias, suscités par des innovations technologiques, va plus ou moins vite entraîner le dépérissement d'autres médias dont l'électronique avait déjà permis naguère l'apparition, mais qui sont maintenant entrés dans nos habitudes. En réalité, ils sont plutôt complémentaires les uns des autres, rendant des services différenciés.

C'est ainsi que les banques de données accessibles en ligne continuent à se développer, de nouveaux services se créent, les congrès "on-line" ne voient pas leur succès se démentir. Ce mode d'accès à l'information s'est banalisé ; il n'en continue pas moins à jouer un rôle nécessaire. Dans tous les domaines, et donc aussi dans celui des sciences sociales, il permet aux demandeurs d'informations bibliographiques, factuelles, numériques, de les obtenir à distance, sans être désavantagés par la situation de leur lieu de travail. En outre, ces informations sont disponibles de façon presque instantanée et, dans la plupart des cas, elles sont continuellement tenues à jour.

En contrepartie, ces avantages ont pour l'usager un coût. C'est ce media qui a introduit dans la pratique la notion de l'information payante. Cela est rendu nécessaire par la lourdeur des dispositifs qu'il faut mettre en place pour rendre possible cette consultation, qui doivent être financés, et par le coût même de l'énergie informatique consommée. C'est rendu possible par le fait que chaque consultation laisse une trace, qui s'inscrit avec son origine et sa date dans un compteur de la machine. Il est donc devenu normal que l'usager paie sa consommation d'information en ligne, quitte à répercuter cette dépense sur son employeur ou sur la collectivité à laquelle il appartient. En règle générale, cette nécessité est comprise et acceptée. Il est certain qu'elle restreint la demande d'information en ligne ; mais en même temps elle introduit une discipline salutaire, en décourageant des demandes qui ne correspondraient pas à des besoins réels.

Les producteurs d'information trouvent là eux aussi des avantages, sans quoi ils ne seraient pas si nombreux à offrir de nouveaux services. Ils en attendent un élargissement de leur audience, en attirant et si possible en retenant de nouveaux publics. Ils en escomptent en outre un gain immédiat, puisqu'une fraction de la redevance acquittée par l'usager leur revient. Il faut toutefois reconnaître que, dans beaucoup de cas, ces recettes ne couvrent pas les dépenses engagées. C'est ainsi que de grandes banques de données bibliographiques doivent compenser les frais que représente pour elles la diffusion en ligne par les bénéfices réalisés sur la vente de leurs produits-papier traditionnels.

Les principales exceptions sont celles des services offrant des données sur l'économie, les finances, les affaires, les sociétés — c'est-à-dire des données monnayables par ceux qui les acquièrent, en leur reconnaissant une valeur utilitaire, et qui sont donc disposés à les payer au prix qu'on leur demande. Il ne s'agit plus là proprement de sciences sociales, mais d'informations relatives à certains aspects de la vie en société, donc d'une matière que pourraient utiliser les sciences sociales. La majorité de ceux qui les réclament ont d'autres préoccupations.

Autre partie prenante, les bibliothécaires sont du côté des gagnants. Ils disposent désormais d'un moyen de compléter les ressources locales qui sont toujours limitées, quelle que soit leur richesse, par des sources extérieures. Ils sont amenés à servir d'intermédiaires pour l'appel à ces dernières, l'utilisateur final ayant rarement l'entraînement nécessaire pour manœuvrer lui-même le terminal et encore moins la connaissance des possibilités offertes par chaque base interrogée. Ils voient ainsi leur compétence technique reconnue et valorisée, en ayant l'occasion de jouer un rôle nouveau qui en quelque sorte les

fait sortir de l'anonymat. Petite ombre au tableau, la charge de demander au lecteur d'acquitter une redevance peut à certains paraître une obligation désagréable.

Tout compte fait, le bilan est ici positif à peu près pour chacun des intéressés. Il l'est aussi pour la communauté dans son ensemble, qui bénéficie d'un accroissement de son capital informatif, et d'une amélioration de la capacité de ses membres à tirer profit de ce capital. En témoignent, dans un pays comme la France, les efforts qui ont été consentis par des organismes officiels (notamment la MIDIST et la DBMIST) pour développer l'usage des banques de données, en agissant à la fois sur l'offre et sur la demande.

Il faut mentionner enfin les transporteurs, qui sont les plus sûrs bénéficiaires de l'information en ligne, que ce soit en mode télétype ou en mode vidéotex. L'utilisateur doit toujours recourir aux services d'un réseau de transmission à distance, que ce soit le réseau téléphonique commuté ou un réseau de transport de données, que le moyen de transmission soit le câble, la fibre optique, le faisceau d'ondes relayé par satellite : il est un client obligé d'une entreprise de télécommunications, dont il grossit le chiffre d'affaires. Le succès remarquable de la télématique en France trouve son origine dans la conscience que la Direction Générale des Télécommunications a rapidement prise de l'importance de ce phénomène, et dans l'ingénieuse politique commerciale qu'elle a élaborée sur cette base, et dont elle récolte maintenant les fruits.

La technologie des télécommunications mériterait d'ailleurs une analyse plus développée. On l'a déjà vue intervenir par exemple dans le catalogage partagé évoqué ci-dessus. Elle est à la base de bien d'autres services, dont celui de la télécopie qui connaît depuis 1988 une expansion spectaculaire. Ses progrès se manifestent à la fois dans la rapidité accrue des transmissions et dans la diminution de leur prix. Elle offre déjà un moyen couramment utilisé d'échange entre les professionnels, qui a partiellement supplanté le telex et complète utilement la messagerie électronique en offrant des facilités d'utilisation différentes. Elle permet d'envisager la consultation à distance de toute bibliothèque, à condition que l'on sache résoudre des problèmes délicats d'organisation du travail et de couverture des coûts. Un progrès important doit être apporté par les Réseaux Numériques à Intégration de Services (RNIS).

Si la place le permettait, il faudrait aussi considérer la technologie de ce qu'on appelle globalement "édition électronique", et qui recouvre bien des aspects différents. Le microordinateur et les logiciels de traitement de texte modifient complètement la chaîne de production des documents primaires. L'auteur peut fabriquer lui-même une disquette directement transmise à la photocomposition ; il s'affranchit ainsi de l'intervention d'intermédiaires et se dispense de fastidieuses relectures et corrections. Il épargne à l'éditeur la charge de faire composer son texte ; mais c'est qu'il a pris sur lui des opérations techniques dont il n'avait pas auparavant à se soucier. Il doit aussi s'accoutumer à une nouvelle manière d'écrire, n'ayant plus le support d'un manuscrit, voire d'épreuves d'imprimerie, qui se prêtent à la rature et à l'affinement de l'expression. Quant à l'éditeur, il peut se trouver court-circuité si le "compuscrit" est directement photocomposé et transmis à ses destinataires, sous forme imprimée ou autre.

Le rôle de l'instance éditoriale est encore modifié quand on s'oriente vers l'édition "à la demande", où un texte est stocké dans une mémoire magnétique pour que des exemplaires lisibles par l'être humain en soient tirés chaque fois qu'un lecteur en fait la demande. Il l'est davantage quand on en arrive au journal électronique, mettant en communication les uns avec les autres les membres d'un groupe dont chacun, selon le moment, écrit (sur son clavier) un texte ou lit ceux des autres sur son écran, sans la nécessité d'aucun support durable. La rapidité et la spontanéité des échanges sont favorisées ; mais on est alors privé des avantages inhérents au système traditionnel de la revue savante, notamment à sa fonction de filtre. Qui est alors le gagnant ?

En somme, il semble que nous nous retrouvions en face des questions que nous nous posions déjà quand nous ne disposions que de nos techniques d'antan : dans quelle mesure travaillons-nous pour le bénéfice des utilisateurs, ou pour le nôtre propre, ou pour le progrès de la science (des sciences sociales, dans notre cas) ?

L'intervention de technologies nouvelles fait mieux prendre conscience des dimensions économiques de nos choix ; elle ne diminue pas la responsabilité de tous les membres de notre communauté.

NOTES

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83-SOC-1-E

Crumbling Walls : The Impact of the Electronic Age on Libraries and Their Clienteles

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Joshua fit the battle of Jericho
And the walls came tumblin' down.
American spiritual

INTRODUCTION

More than a score of years has passed since the MARC format emerged, and it is almost that long since the forerunner of today's OCLC, the Ohio College Library Center, began producing machine-readable records for a cluster of academic libraries in Ohio. Since then, new developments — standards for electronic transmission of data ; personal computers ; local, regional, and international telecommunication networks ; online indexing and abstracting services ; CD-ROMs ; integrated library systems — have burst on the library and information scene in rapid succession. We librarians often say that we live and work in a transitional age, but that term is no longer appropriate today. Transition — or change — is not a stage, but an ongoing state — something that is here to stay.

Change is a constant in our lives, and the pace of that change is becoming ever more rapid. In this paper, I want to explore some of the consequences of such change, focussing on the application of computer-based technology to the provision of information services in libraries.

USER EXPECTATIONS

An increasing number of library users and information seekers are "computer literate", that is, they are comfortable with using computer terminals and have little difficulty in mastering basic protocols for computer use. And that knowledge leads inevitably to heightened expectations when library users comprehend that the computer terminal is a significant key in unlocking stores of information. What are some of those expectations ?

- Users are quick to conclude that the bibliographic records available through an online public catalog represent everything in a given library's collections — whether this is the case or not, and regardless of notices to the contrary and the continued existence of card catalogs or other manual files.
- Users want to be able to use just one computer terminal to access citations to journal articles and technical reports and to obtain traditional catalog information. Increasingly, users would like to be able to retrieve abstracts — ideally, the full text of articles and reports, as well as statistical and graphic data — at the same computer workstation.
- Users expect to find bibliographic information for all forms and formats of material through the online catalog : books, serials, maps, manuscripts, sound recordings, machine-readable data files, films, and other audio-visual items.
- Users want to know whether information relevant to their needs exists, regardless of where it is housed or from whom it can be obtained.

- Users want to be able to select data from any particular file, to combine and organize data from multiple sources, to download or print the results, and to transmit information to colleagues.
- Users want to be able to do all these things, and to gain access to all this information, in locations and at times convenient to them — in offices or in homes ; and they want these capabilities on a reliable basis in a user-friendly machine environment. Moreover, they want all this with little or no additional out-of-pocket cost to themselves.

I quote from a paper by Anne Grodzins Lipow :

> the very definition of a library catalog is changing because of how much more than book and serial titles or holdings information the online catalog can contain. It can contain other bibliographic information, such as periodical article titles ; it can contain a variety of databases, including full-text files ; it can contain acquisitions and circulation information which tells you whether the material you want is on order, or if it is out to another borrower and when it is due back ; it can provide advice about how to search the catalog effectively ; it can contain information about the library itself, about community events ; it can be the vehicle through which the library can convey information to the searcher, and the searcher can convey information to the library, such as a request for a hold on a book or the delivery of library materials to the searcher. In fact it is hard to know what the limits of the online catalog might be.[1]

With all these capabilities it is no surprise that information is *perceived* as having no boundaries, in terms of where it comes from, or the packages in which it is contained, or what it costs to produce, organize, and provide access to data.

To what extent are these expectations being met ? There are, I imagine, a few organizations — mainly special libraries, well funded, with a narrow subject focus, and perhaps a very small number of academic libraries — where a significant portion of what I've described above takes place now. But for most of us there are, and will be, many impediments to the realization of these expectations for our users.

OBSTACLES FOR LIBRARIES

Complexity

As a library consortium planning group in the United States recently stated :

> "More people have greater access to a larger store of information than at any time in the past, but it is incorrect to assume that the depth and breadth of individual access is growing at anything like the rate of information production. The problem is that people do not know that the information is there, or, if they do learn of its existence, [they] have no clear sense of how to penetrate the cryptic maze that surrounds it."[2]

The increasing complexity of the information world can be reflected in a few statistics. As of last year, 3.893 online databases were commercially available from 1.723 database producers and 576 online services. As of 1987, the entire *text* of 355 periodicals was available through one database vendor, Lockheed Dialog. The infrastructure of the world of information is being transformed.

But the increasing complexity stems to some degree from a change in perceptions on our part. We librarians now take for granted that information from many places and in many forms *can* be made available for our users. In the past we simply dismissed the concept of ascertaining whether information on a given topic resided in another country or on another continent because the pursuit would be untimely or too costly ; and even if we knew or suspected its existence it was only in extraordinary cases that we bothered to try to obtain it. Our conceptual world of information possibilities has expanded. Nevertheless, getting information from the far corners of the world is more complicated than what we did previously — that is, extracting data from our local library's catalog and retrieving items from our local library's shelves.

Even on the local scene, complexity is the rule rather than the exception. Most libraries of any size do not yet have a comprehensive online catalog that fully reflects their holdings ; even if most or all of the monographs and serial titles are represented, it is seldom the case that works in non-traditional, non-book formats are encompassed. Thus an increasingly important part of the spectrum of our resources is still not readily accessible to our clientele.

Training : staff and users

Although some library users have little hesitation or difficulty in approaching a library computer terminal and mastering the intricacies of an online catalog, others are not only unused to facing a terminal but embarrassed, intimidated, or resistant to the prospect. Even in libraries with a narrow subject focus we may expect a wide range of familiarity or ignorance with respect to computer literacy. In academic libraries this situation is compounded : colleges and universities have a never-ending stream of *new* users.

The growth of interdisciplinary research places further emphasis on the need for user training and access to librarian assistance, because scholars increasingly need to explore specialized fields with which they are not familiar, and where they are not acquainted with the precise terminology needed to gain access to information files.

Achieving and sustaining user expertise in gaining access to information becomes even more difficult as more and more users have the technical capability of connecting to library and information databases in non-library locations : how does a library provide guidance to a user at a remote distance ? How does a library provide assistance to a user at a home computer terminal who has run into technical or intellectual obstacles when the library building is "closed ?"

Our computer-based catalog systems have failed to incorporate or to replace many of the sophisticated, often implicit, visual cues found in the old card catalog format. Although the computer has the potential for much more powerful manipulation and arrangement of data than the card catalog, the organization of card catalogs — even going from one library to another — was comparatively consistent and simple. Labels on drawers provided an organizational pattern at the gross level ; within the drawers were guide cards and explanatory cards (for voluminous authors, for example) and cross-references. The individual cards themselves had numerous implicit visual cues : bold print for main entries ; use of capitals and lower case typography ; indentation to mark off titles ; different font sizes to express bibliographic and other informational notes.[3]

Though in most online catalogs the screen display is a transposition of the old card catalog format, many of these visual cues have been lost, and the resultant display is inherently more confusing, especially to the computer illiterate and the neophyte researcher. This loss of implicit visual cues may have a particularly negative impact on those users who need to move about from system to system, or from database to database. Moving from online catalogs at various universities, to that of the Research Libraries Information Network (RLIN), to OCLC, or to those of various commercial vendors (*e.g.* NOTIS, GEAC, Innovative Interfaces Inc.), one finds at first glance that the bibliographic displays are quite similar. The screen typographic styles resemble each other, and records are formatted similarly, based as most of them are on the catalog card. But the access strategies are very different ! Many users familiar with one system will expect the same protocols and the same system capabilities to be in effect when starting to use another system. Not so.

If libraries are to provide acceptable levels of instruction and assistance to users, they must first devise and implement ongoing training programs for their staff members. In large research or public libraries this entails a variety of programs rather than a single training module. In all libraries the programs must undergo revision on a continuing basis if they are to keep pace with changing technology and changing information products.

ORGANIZATIONAL AND FUNCTIONAL CHANGE IN THE LIBRARY

Over time, the character of work performed by reference librarians will change, in ways that are more fundamental than learning to deal with computer-based technology. Librarians will function more and more as consultants to their clienteles, as does the special librarian who often serves as a member of a research team.

Online databases such as OCLC, RLIN, UTLAS, and BLAISE have provided bibliographic data useful to many libraries and have also enhanced the importance of paraprofessional staff in many libraries. Just as this corps of employees has assumed much of the cataloging work and other technical service responsibilities that formerly were performed by professionals, we will see an increasing portion of reference service — except for the kind of in-depth consultation mentioned above — assigned to paraprofessional staff.

In larger libraries we are seeing the influx of new categories of staff : both paraprofessionals and people at the professional level, but without formal training in librarianship : programmers and system analysts, telecommunication specialists, media technicians and specialists, and conservators and restorers.

When we thought primarily in terms of the collections in a particular building, we could construct our own bibliographic files with much less regard than is now the case for the standards and policies and practices used elsewhere. Today, we often encounter political pressure as an accompaniment to the technical capacity of having the holdings of our local library represented in a multi-institutional or national or even international database. In these circumstances we must follow the rules ; that is, we must conform to a standard cataloging code and encoding format for bibliographic records, and we must restrict or eliminate the deviations from standard practice which we formerly tolerated.

Any automated system has an extended ripple effect when changes are made in any one part. When we each had our distinctive catalogs to give access to a specific collection, filing a card or adding some subject headings or cross references made little difference in other quarters. This is no longer the case in the automated environment. A cataloger can practice individualism and eccentricity only at his or her own peril — and with the likelihood of causing some amount of trouble in whatever system is being used.

On a broader level, we see enormously increased interdependence at all levels of bibliothecal organization. The ripple effect mandates, more than ever before, teamwork and active staff participation in planning, policy development, and decision-making. The increased diversity in backgrounds and skills of library staff members will require more sophisticated management ability on the part of library administrators.

COSTS

The advent of widespread computer-based applications to library and information operations and services has brought new dimensions to library fiscal management. By now, it is common knowledge that automation does not, as a rule, reduce library expenditures. In most applications, increased costs are the rule — justified by the capacity to provide improved and enhanced services. Although the justification may be obvious to library administrators, it is not always easily accepted by others, such as those responsible for setting the library's budgetary allocation. This is particularly true when a library's fiscal base is derived from formulas or practices established before the advent of today's technology.

A second and related cost dimension is that of amortization and obsolescence. Computer equipment and related software have an alarmingly short lifespan. Although successive generations of equipment and software may allow us to access information more effectively and faster than ever before, the need to replace expensive equipment in a three to five year timespan is a real challenge, and contrasts dramatically with replacement of traditional equipment such as desks, chairs, and bookshelves.

Moreover, we can anticipate technological developments applicable to our work, the nature of which we can only imagine. One that would appear to presage a major impact on information delivery is the linkage of television and computer-based information services. In order for libraries to serve users effectively, and to sustain roles other than that of information museums, we will need to be prepared — and funded — to exploit this sort of technical advance.

In these times when the world of information is seen as reaching around the earth and beyond, it is not always clear whether librarians are to be counted with Joshua and his trumpets, blowing down the walls of parochialism and isolation that inhibit the free flow of information, or whether we are inhabitants of that legendary city of Jericho, defending our tradition-bound, idiosyncratic practices that concentrate our vision on what is contained within the fortifications. We have the world to gain for those whom we serve, if only we have the vision and determination to work together to achieve it.

NOTES

1 Anne Grodzins Lipow, "Impact of an Online Catalog on Library Staff : Not Yet All Roses" • Paper originally presented at the Small Computers in Libraries Conference, Oakland California, March 16, 1989. Also, published in *Proceedings of the Conference*, in press, 1989.

2 *Ohio Library Access System (OLAS). Planning Paper.* November 2, 1988. Greg Byerly, principal author.

3 *See* Lipow, *op. cit.*, for a more extended discussion of the differences between card and online catalogs.

112-SOC-5-E

Increase of User Satisfaction Through Use of Electronic Media in a University Library

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ABSTRACT

The "Universidad Nacional Autónoma de México" (National Autonomous University of Mexico) has the "Centro de Información Científica y Humanística" (CICH-Scientific and Humanistic Information Center) to meet the information needs, mainly of researchers. Essentially, they require two types of information : a) concerning their research work, and b) references for their papers in order to enter the National System of Researchers.

The CICH library provides both. Initially, only printed information was offered ; now information is becoming available through automated services and new technologies. This has made it possible to offer services that meet the information needs of the final and the intermediate user in a pertinent, relevant way, and to develop the creativity of the library staff, since the information supplied undergoes a repackaging process.

INTRODUCTION

The National Autonomous University of Mexico (UNAM) is the country's largest institution of higher learning and one of the most prestigious and oldest in America, with origins going back to the 16th century.

Around 150,000 bachelor program and postgraduate students attend classes and there are about 27,000 professors and researchers. It is the institution that produces the greatest number of Masters and Doctors in Mexico and it has the most important bibliographic and newspapers and periodicals section in Latin America. A high percentage of the research done in the country in different areas (more than 50 %) is performed here and it is the institution with the greatest number of "national researchers", an incentive granted by the Mexican government to the most outstanding researchers in recognition of their academic work.

UNAM researchers have received many national and international awards in recognition of their work.

THE NATIONAL SYSTEM OF RESEARCHERS

The National System of Researchers (SNI) was created by the presidential accord of July 26, 1984, whereby the appointment of "national researcher" would be bestowed on those of the country's scientists, technologists and savants whose research was of a high quality and productive level in the opinion of their colleagues. In addition to this official distinction, the SNI would provide economic incentives to prevent the exit of well prepared scientists with the consequent disintegration of the Mexican scientific community, in view of the conviction that this community is important to Mexico's progress, and would be reflected in greater development, productivity and relevance. According to the 1984 census of the National Council of Science and Technology, there are 16,000 researchers in the country.

As well the document creating the SNI, with its accords and amendments, the government has published "instructions for completing the form". These instructions specify the requirements for filling out the application for entrance into or renewal of membership in the SNI, and in point 4, referring to "productivity", the applicant is requested to state, among other things, how many times his work has been cited by other authors. The researcher must attach a copy of the list of references to his work as an indispensable requirement.

Since the twenties, research has been systematically reinforced and there are today two large nuclei of research : the humanistic and the scientific, giving rise to two coordinating

departments within the formal structure of the university : the Humanities and Scientific Research.

The infrastructure of the institutes grouped together in these two coordinating areas (laboratories, shops and libraries) becomes the ideal place for carrying out the research process, which in turn strengthens the teaching activities. In Mexico, we have available highly important advances, capacities and infrastructure related to the area of scientific information, together with a variety of insufficiencies and problems that, if properly coordinated and directed, will allow us to face the future with the possibility of greater benefits for our country.

The information destined to generate new knowledge is a strategic resource for the social, cultural and economic development of a country. There are different strata of information needs, and in Mexico we do not have enough means of dissemination focused on specific needs such as bibliographies, catalogs, indexes and abstracts, etc.

As in other countries, from library point of view, we do not have compatibility with all the data banks, nor do we have national standards for organizing the information. Therefore, the user comes up against obstacles such as different formats that require special reader equipment, costs, lack of orientation, confidential or restricted information, etc.

THE SCIENTIFIC AND HUMANISTIC INFORMATION CENTER (CICH)

The CICH is a sub-agency of the UNAM and has the prime purpose of covering and supporting the specialized information needs of the university community, mainly researchers, through its different services : retrospective bibliographic research, localization of primary documents, updating and selective dissemination of information — and through the preparation of products of information such as bibliograhic data bases, indexes, catalogs and bulletins. It also supplies advisory services to institutions in the design and development of information centers, information systems, bibliographic data bases and application of new technologies for handling information. It trains personnel and brings them up to date in this field through teaching activities such as the "International Course on Updating in Technology, Systems and Communication of Information" offered annually, and a variety of courses, workshops and events.

The continual incrementation and complexity of information requires the aid of different technologies for better handling and dissemination. We find ourselves within the information industry, from whose components new ideas emerge for the best use of information systems, products and services in capturing, processing and recovering information.

CICH LIBRARY

As an Information Center, the CICH has its own library, which shares new technologies and services with the other department. This library is composed of three collections :

a) Reference Collection

With a multidisciplinary contents, divided into general and specialized reference material. This is formed by approximately 250 titles of printed indexes and abstracts with open shelves, six CD-ROM titles, and consultation with four national data bases (*three of them developed in our Center*). There is also a telephone service for responding to questions.

b) Collection and Bibliotechnology (Library Science) and Information Science

Approximately 70 magazine titles, an alert service, an encyclopaedia, 1500 books and its own data base for recovery with a summary of the information contained in the magazines and the possibility of immediate photocopying of the original document.

c) Latin American Magazines and Periodicals Library

Consists of around 2500 magazine titles from all the Latin American countries (generally with little international circulation). This multidisciplinary collection is the raw material for several information products generated by the CICH, which are :

CLASE : References in social sciences and humanities.

PERIODICA : Index of Latin American science magazines.

Available nationally and internationally, both in printed and on-line form in their respective data bases and in CD-ROM. This collection also has its own base for internal administrative control. Its greatest benefit is that the person who consults the above-mentioned indexes has the possibility of getting the original document in a few minutes.

AUTOMATION OF THE LIBRARY

The CICH authorities are continually concerned with keeping the academic staff's knowledge of new technologies up to date, and training them to develop their creativity to provide the library user with efficient, efficacious service. Not only must the librarian know the sources that make it possible to offer users pertinent, relevant information, but he must also know what information technology offers to best meet the future information needs in a new, not very distant century.

In the fall of 1985, during a MINISIS course, a small data base was designed as a course evaluation requirement, to solve the complex acquisitions system the library implemented. The reason behind this complexity is due to three factors :

a) The search for lower costs in order to buy more for less.

b) Our deficient mail system that frequently loses material that has already been paid for.

c) The acquisition of material through five different systems :

— CICH subscription department for periodical publications to be bought.

— National purchases directly from the publishing house.

— Foreign purchases through a national supplier authorized by the UNAM.

— Direct purchases from national bookstores.

— Purchases abroad through the General Supply Bureau of the UNAM.

A very different process is involved in each of these forms of acquisition, making manual control highly complex, but we feel that using our budget carefully justifies it. Thus, automation of the library was officially initiated as the result of course work.

At that time, we did not have material, financial or technical resources, but we had the most important thing : "Human Resources". The library's staff was highly motivated. We have had to travel a long road, but as a group our enthusiasm has always been high, and creativity has been developed along with professionalism and patience, as we have often had to face adversity, but have never lost sight of our goal, which is to offer better services. As advisors and experts in this area, constant improvement is our obligation.

NEW CONSULTATION AND TELECOMUNICATION SERVICES

a) The Center's Data Bases

— After the acquisitions data base, in 1986 creation of the data base of the Latin American magazines and periodicals library was started for internal control of selection, request for magazines from the publishers, acquisitions (90 % of which are donates), complaints, directory of publishers, etc.

— CIIN, data base on bibliotechnology and information science developed in 1988. This contains 70 magazine titles which cover different topics, including : research, bibliography, library associations, users, use of the library, organization and administration, automation, buildings and equipment, services, technical processes, CD-ROM data bases : telecommunications, abstracts services, etc. The size of the data base in around 2000 bibliographic references from 1985 to the present. It is updated every two months.

To create this data base, we used the MICRO CDS/ISIS software, which allows tranferring the information to CICH's HP3000/48 minicomputer which has the MINISIS software. There is also access through the public data transmission network to national and international users.

b) CD-ROM

At the end of 1987, and now with our own equipment, we acquired our first directory type compact disc title : *Serials Directory*, and obtained a permanent loan of 3 more titles : MEDLINE, NTIS and ERIC. In 1988 we received the donation of the national CD-ROM : LIBRUNAM. We bought the SCI (1986-) and the Ulrich in 1989. We also have our data bases on compact disc : Clase, Periodica, Biblat, Mexinv and Desa.

c) Electronic Mail

Since the beginning of 1988 we have offered the electronic mail service, beginning with Dialmail and Bitnet, and since July 1989, HP-Desk.

d) National Data Bases

Our computer is interconnected with CONACYT to provide Mexican data bases with national and international communication support.

Since March 1986 the CICH has had its HP3000/48 computer connected as a host to the TELEPAC public data transmisson network and gives access to its 6 bibliographic data bases : Clase, Periodica, Biblat, Mexinv, Desa and ASFA (Aquatic sciences and fisheries abstracts), as the CICH is the regional capturing center for the last mentioned. These bases are also consulted in the library together with the data base : LIBRUNAM (400,000 titles of books containing the 160 libraries of the UNAM) ; UNAM-JURE (information on jurisprudence), SIE-BANXICO (economic information from the Bank of Mexico) and ARIES (UNAM information on its academic organization).

SATISFYING USER INFORMATION NEEDS BY ELECTRONIC MEANS

As we mentioned previously, the person who uses our library is primarily doing research ; he may be a student preparing his graduate or postgraduate thesis, the researcher's assistant, the researcher himself, etc.

How can the library meet their needs with new tools ? How can we measure this satisfaction ? How do we implement new activities, taking advantage of these technologies ? The library has a variety of possible answers to the above questions :

Research is being done right now by means of theses, numbering 5 all together : four at the bachelor level and one at the Masters level :

— Social sciences in Latin America through the Class data base.

— The importance of the services of a magazine periodicals library in an information center.

— Coverage of biomedical information by international indexes and abstracts.

— The impact of new technologies on services in a library of an information center.

— Scientific dissemination as part of university extension.

Three are done by library personnel and three are directed by the library's professional staff.

STATISTICS

As well as this research, the library runs statistical controls on the printed information and on the services provided with new technologies, with the finding that number of users went from 1280 per year in 1984 to 2400 per year at the end of 1988. Thus, the increase was 55 % of which 70 % belongs to the UNAM and the remainder to other institutions.

Considering there are approximately 500 UNAM researchers registered in the SNI, the library has helped more than half with information, but this information is not offered only through the conventional means usual in a specialized library. We also transfer the information repackaged, and we process it for each different need, in other words, we respond to users taking into account : to whom, what and for what. The following two examples illustrate this :

From the interior of the country, the library receives the request by electronic mail for updating references of researchers belonging to the SNI. The search in CD-ROM is done and the result of the search is again sent by electronic mail to the research institute or center. This procedure makes the processing through the communication means very fast and economical because it avoids having researchers leave their work center, which is often far from Mexico City.

In another procedure, the user who receives our "PORTAL" alert service requests photocopies of original documents by electronic mail (now we are talking of large volumes of information and of a low purchasing power on the part of the requesting party). In one day we have the photocopies and they are sent by bus (a much faster means than our postal services, at a low cost) to the addressee, informing him by telegram of the date the material is sent and of the guide number.

Another way of discovering how meeting the pertinent information needs of our users has increased is by means of the photocopy service. The request for photocopies increased 100 % from 1984 (5 000) to 1988 (10 000).

Telephone replies to general questions went from 150 in 1984 to 1 200 en 1988, an increase of 700 %.

Requests that were met, for photocopies of articles derived from the CLASS and PERIODIC indexes went from 1 500 in 1984 to 6 000 in 1988, with an increase of 300 %.

Consultation of on-line services provided by the library from August 1988 to May 1989 was :

BIBLAT : 40

CD-ROM (ERIC, MEDLINE, Ulrichs, Serials Directory, SCI, LIBRUNAM) : 200

CIIN : 180

CLASE : 120

PERIODICA : 100

ELECTRONIC MAIL : 260

LIBRUNAM : 220

The use of electronic means undeniably represents a change with a significant scope, although it is not easy to predict at this time. However, through new means of tracing, recovery and provision of electronic information, we can solve a large part of the information needs, since information, is multiplying at a very high speed and the only way of meeting these needs on time is by incorporating new technologies that allow recovering the information for both final users and intermediate users.

If libraries want to provide a service that responds rapidly and efficiently, they must stay linked to new information technologies in order to optimize their functions and services, focused on the future needs of the users.

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Archivage et diffusion des photographies aériennes et de l'imagerie spatiale : la photothèque de l'Institut géographique national (France)

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1) BASES LEGALES

L'existence d'une documentation importante de clichés aériens, saisis essentiellement dans le cadre de l'établissement et de la mise à jour de l'équipement de base d'un pays et notamment de sa carte topographique de base, pose immédiatement les problèmes d'archivage et de mise à disposition.

Si l'on souhaite que ces problèmes soient réglés au mieux des intérêts généraux et sous le signe de la durée, on en

conclut rapidement à la nécessité de créer une structure qui soit spécialement chargée de traiter l'ensemble de ces questions. Etant donné les implications de l'Etat dans la gestion d'une telle structure et la mission de service public qui ne manque pas de lui être attachée, rien ne peut être valablement réalisé sans réunir au préalable les bases légales correspondantes.

Il faut remonter à 1941, date où la création de l'Institut Géographique National (F) a donné le signal du début d'une collection de photographies aériennes. Puis, en 1945, à la fin de la guerre, le gouvernement provisoire de la République Française créa le Centre de documentation photographique, qu'il organisa par décret du 29 mai 1946 en "Centre de documentation de photographie aérienne".

Ce Centre fut chargé de rassembler tous les clichés aériens pris par les services publics ou pour leur compte, en métropole et dans les territoires d'outre-mer. Sa mission était d'assurer leur classement et leur conservation, et d'en mettre des copies à la disposition de tous les départements ministériels. Son but était d'éviter les doubles-emplois et d'écourter dans la mesure du possible les délais de délivrance des précieux documents.

En 1978, des images du satellite LANDSAT viennent enrichir le fonds de ce Centre de documentation.

L'évolution des techniques conduit en 1986 l'Etat à élargir la mission de ce Centre en le chargeant de recueillir non seulement les photographies aériennes mais aussi les images à usage métrique, issues d'enregistrements aériens, obtenus avec des récepteurs de toute nature, photographiques ou non, ainsi que les "images pré-traitées issues d'enregistrements spatiaux concernant le territoire national, effectués à la demande des services publics ou pour leur compte, par les satellites d'observation de la terre à résolution au sol infrahectométrique, que ces satellites soient français ou non".

Afin de permettre à ce Centre de disposer le plus rapidement possible des imageries SPOT saisies sur le territoire français, un accord particulier a été signé avec la société de droit privé SPOT-Image, chargée de la diffusion commerciale des données SPOT.

Aux termes de cet accord récent, valable deux années et renouvelable, l'IGN (F) apparaît à la fois comme distributeur non exclusif de données SPOT, comme utilisateur et comme conservateur.

Le nouveau décret en date du 8 février 1986 consacre ces missions et donne officiellement le titre de "Photothèque Nationale" au Centre de documentation de photographies aériennes de l'IGN (F).

Le dépôt légal des enregistrements aériens s'y trouve exigé pour les travaux couvrant des surfaces supérieures à 10 km2 ou comprenant plus de 50 images ; il vise tout service ou administration de l'Etat, des régions, des départements ou des communes exécutant ou faisant exécuter de tels travaux ou acquérant des images spatiales pré-traitées. Un délai de 6 mois leur est accordé pour remettre soit les enregistrements originaux soit des contretypes. Certains travaux, à caractère exclusivement militaire, effectués par le Ministère de la Défense ou pour son compte, peuvent bénéficier d'une dérogation.

La Photothèque est officiellement chargée de mettre la documentation à la disposition du public et d'exécuter à sa demande "les tirages, agrandissements, redressements ou assemblages nécessaires".

La gestion de la Photothèque nationale est confiée à l'IGN (F) ; elle constitue une mission de vocation de l'établissement.

Se trouve donc réaffirmé le fait que la couverture photographique aérienne et l'imagerie spatiale d'un pays font partie intégrante de la production de vocation du service cartographique officiel de celui-ci, au titre de l'équipement de base du territoire et que cette vocation s'étend à leur conservation et à leur mise à disposition.

Toutes les conditions sont donc désormais remplies pour que la Photothèque nationale accomplisse avec succès sa mission élargie en direction des données spatiales et puisse constituer ainsi une documentation particulièrement riche, complète et vivante, couvrant tout le territoire français.

2) PHOTOGRAPHIES ET IMAGES DISPONIBLES

L'existence d'une photothèque nationale se trouve rapidement justifiée par l'abondance des documents à archiver.

En ce qui concerne la France, en plus de soixante ans, le territoire et nombre de territoires d'expression française d'outre-mer, ont été couverts par une ou par de nombreuses prises de vues aériennes, à des échelles allant de 1 : 1 000 à 1 : 100 000. Cette collection vivante est à la disposition de tous.

Les plus anciens clichés détenus par la Photothèque nationale datent toutefois d'un siècle. Il s'agit d'images saisies vers 1886 par Nadar dans son ballon.

Mais il faudra attendre la fin de la Grande Guerre pour entrevoir le commencement de ce qui sera ensuite la grande époque de la photographie aérienne, époque qui se poursuit de nos jours.

Quelques dates en jalonnent le développement.

En **1919**, les progrès de l'aviation et de la photographie entraînent ceux de la prise de vue aérienne. Les militaires, puis les sociétés privées, les géomètres, commencent à utiliser ce document irremplaçable pour la découverte et la représentation du terrain "vu d'en haut". La Photothèque de l'IGN (F) possède des archives datant de cette époque.

C'est en **1939** que le Service Géographique de l'Armée entreprend la couverture photographique systématique du territoire.

Depuis **1945**, l'IGN (F) effectue régulièrement des prises de vues aériennes stéréoscopiques à une cadence permettant un renouvellement total tous les cinq ans en moyenne. Sur des zones en développement peu rapide, ce délai peut atteindre, voire dépasser, 10 ans. Inversement sur d'autres, très actives, il peut tomber à 3 ans.

Actuellement ce sont près de quatre millions de clichés aériens et six millions de documents secondaires (contretypes, épreuves sur papier...) qui sont archivés, répertoriés et accessibles à tout instant grâce à un double classement, chronologique et géographique.

Chaque année le fonds s'accroît en moyenne, toutes échelles confondues, de soixante mille clichés nouveaux et des documents secondaires correspondants, selon des programmes établis en accord avec le Comité Central des Travaux Géographiques, ou depuis 1986 avec le Conseil National de l'Information Géographique, son remplaçant.

Ainsi par exemple en 1985, le Service des Activités Aériennes a saisi 56 550 clichés, dont 52 430 en France métropolitaine et 4 120 dans les départements d'Outre-Mer (Nouvelle-Calédonie, St-Pierre-et-Miquelon).

En 1986, ce sont 58 388 clichés aériens qui ont été pris en France métropolitaine.

Ces cadences permettent ainsi de disposer actuellement en tout point du territoire d'au moins 3 couvertures récentes et souvent 4 ou 5, dont l'échelonnement permet de mettre en évidence les évolutions et les grandes tendances qui se manifestent sur un site donné. Parmi ces quatre millions de clichés aériens signalons en outre environ quarante mille vues obliques, non stéréoscopiques, prises sur des sites particuliers : villes, monuments, ouvrages d'art, voies de communications, etc...

Les formats disponibles sont généralement de 19 x 19 cm pour les films antérieurs à 1960 et 24 x 24 cm pour ceux pris depuis. A signaler l'existence de plaques de verre 13 x 18 cm, puis 18 x 18 cm, utilisées antérieurement au film, et qui sont également stockées en archives.

Les échelles les plus fréquemment rencontrées sont les suivantes :

— **le 1 : 15 000** pour les travaux destinés à l'Inventaire Forestier National, sur émulsion panchromatique généralement doublée en infrarouge noir et blanc ou couleur. Le cycle de répétition est de 10 ans. A signaler aussi des saisies destinées à des levés réguliers et restituées sous forme de cartes au trait au 1 : 5 000, généralement sur des zones urbaines,

— **le 1 : 20 000**, pour les travaux destinés à l'Inventaire Permanent du Littoral, dont le cycle de renouvellement est de 5 ans et qui couvre l'ensemble du littoral sur une bande de 10 km de largeur, sur émulsion panchromatique doublée en infrarouge noir et blanc. A signaler également des travaux récents en noir et blanc et en couleurs naturelles couvrant certains départements et des saisies à longue focale (610 mm) effectuées sur des agglomérations urbaines, en panchromatique, doublé de couleur naturelle et qui sont généralement très appréciées, mais nécessitent des conditions météorologiques très favorables étant donné l'altitude correspondante du vol, supérieure à 11 000 m.

Aussi tend-on à effectuer ces saisies à échelle supérieure, au 1 : 15 000, voire au 1 : 10 000 sur les villes.

— **le 1 : 30 000**, couverture standard effectuée en panchromatique, destinée à la confection et l'entretien de la carte topographique de base au 1 : 25 000, et qui constitue à elle seule près

de la moitié de la collection annuelle des clichés sur la France et représente les 2/3 de la surface des terrains photographiés.

On a tendance actuellement à assurer un recouvrement stéréoscopique longitudinal de 80 % pour faciliter les travaux en aval (les clichés pairs servant au contretypage et à la diffusion, les impairs au marquage et à la restitution).

— **le 1 : 60 000** qui couvre le sud de la France (latitude inférieure à 52 grades) en panchromatique et/ou en infrarouge couleurs, mais n'est pas systématiquement renouvelé.

En ce qui concerne l'imagerie spatiale, la Photothèque détient 2 304 clichés issus de Landsat et saisis sur la France de 1975 à 1983, auxquels s'ajoutent quelques clichés pris par la Caméra métrique sur la France lors de la 1ère expérimentation Spacelab de l'Agence Spatiale Européenne de décembre 1983.

Mais avec le satellite SPOT ce sont des imageries à résolution de 10 m en panchromatique et de 20 m en mode multibande qui viennent peu à peu enrichir les collections de la Photothèque.

En mars 1987, 130 films issus de SPOT étaient déjà déposés à la Photothèque.

Les images spatiales y sont archivées sous forme analogique. En principe, aucune bande magnétique n'y est conservée pour le moment. Les images issues de Landsat MSS (scanneur multibande) le sont sur émulsion noir et blanc à l'échelle de 1 : 1 000 000. C'est la Société SPOT-Image qui conserve sous forme numérique quelque 300 000 images SPOT recueillies sur le monde entier, après un an et demi de fonctionnement.

Les images SPOT archivées à l'IGN proviennent généralement de rectifications de niveaux 1 et 2 et sont stockées sur support film, à l'échelle de 1 : 400 000. Toutes sont, quelle que soit leur origine, consultables par le public. En revanche aucun prêt ne sera permis ; seules des cessions de reproductions seront possibles, selon le tarif en vigueur auprès de SPOT-Image. Cette consultation sera bientôt organisée de façon à ce que l'on puisse savoir rapidement sur place le type et la qualité des images existantes au catalogue de SPOT-Image, ainsi que celles qui sont disponibles à la Photothèque. De plus les agences régionales de l'IGN disposeront également d'un lot d'images de SPOT, de même qu'elles détiennent actuellement des tirages aériens de leur zone d'action.

Le classement de l'ensemble des missions aériennes est effectué en référence à la carte. Les diverses missions sont répertoriées dans des catalogues ou figurent en surcharge, sur le fond de la carte au 1 : 50 000, des tableaux d'assemblage, également reproduits sur microformes (cartes à fenêtres).

Un indexage simple permet d'obtenir en quelques minutes communication du tirage-témoin du cliché demandé en consultation, ce qui est, compte-tenu du volume des archives, d'une rapidité remarquable.

On projette de numériser les catalogues existants en enregistrant l'emprise, le thème, et les autres caractéristiques des missions. Pour les missions nouvelles, on enregistrera en outre la position du centre de chaque cliché. Le fichier ainsi constitué pourra être facilement reproduit pour permettre sa consultation en divers points du pays, notamment dans les agences régionales de l'IGN. Ces duplications répondent également à des impératifs de sécurité, les catalogues généraux n'étant actuellement disponibles qu'en un seul exemplaire. On estime pouvoir achever cette saisie informatique dans un délai de 5 ans.

Le transfert du fichier sur ordinateur central ouvrira la voie aux interrogations internes puis externes, à l'attention du grand public, par l'intermédiaire d'un centre serveur, et éventuellement par minitel.

3) PERSONNEL ET LOCAUX

Outre le personnel de direction et les agents de vente, toute photothèque doit disposer d'une équipe de photographes qui lui soit affectée à temps plein et de laboratoires adaptés aux travaux correspondants. Cette équipe doit être composée de professionnels particulièrement qualifiés et soucieux de manipuler en permanence avec le plus grand soin les documents originaux, de façon à éviter d'entacher les négatifs de toute rayure ou amorce de déchirure, de toute trace de doigt ou de tout défaut dans les opérations de lavage ou de fixage. Les équipements doivent comprendre des machines à développement automatique des films en noir et blanc, des tireuses à compensation électronique, et des agrandisseurs. Chaque photothèque doit de plus avoir accès en aval à un réseau d'ateliers et de laboratoires spécialisés dans la confection des produits dérivés nécessitant l'emploi de redresseurs, d'orthoprojecteurs, d'appareils de restitution photogrammétrique, voire de tables à tracer automatiques.

Les conditions de stockage des films originaux doivent être contrôlées périodiquement.

Il convient de veiller à maintenir dans les locaux d'archivage une température pas trop élevée, et d'éviter tout excès d'humidité propre à faciliter le développement de champignons sur la gélatine, ou inversement tout excès de sécheresse qui provoquerait des craquelures et des gauchissements.

Le stockage en sous-sol est recommandé et des précautions contre l'incendie sont à prendre.

Les films les plus anciens, ayant un intérêt historique, et dont le support est souvent en nitrate de cellulose devront être isolés en attendant d'être contretypés sur un support inflammable (polyester de préférence).

Un bon moyen de conserver les films en rouleaux consiste à les enfermer dans des boîtes cylindriques étanches, en métal ou en plastique, placées verticalement sur des étagères métalliques.

Les films coupés seront stockés à plat par boîtes d'environ 60 à 70, après avoir été placés dans des pochettes individuelles en plastique, de préférence en polyester, ou en polyéthylène, à la rigueur en P.V.C.

Des tirages de jeux-témoins sur papier seront systématiquement confectionnés pour la consultation.

A titre d'exemple, la collection de clichés et de jeux-témoins de la Photothèque de l'IGN (F) occupe en sous-sol plus de dix kilomètres linéaires d'étagères dans près de mille cinq cents mètres carrés de sous-sol et son poids dépasse cinq cents tonnes.

Le service est assuré par un effectif de quarante personnes. La Photothèque assure la production des travaux de son comptoir de vente mais également ceux du magasin de vente de l'IGN (F), 107, rue La Boétie à Paris et des dix-huit agences régionales IGN. Pour des raisons de rationalisation des équipements, tous les travaux couleurs sont réalisés dans les laboratoires du Service des Activités Aériennes de l'IGN (F) à Creil (Oise), qui disposent à cet effet des équipements suivants, spécialisés pour le traitement de la couleur :

— 3 tireuses à compensation, pour films en rouleaux ou coupés,

— 1 développeuse pour films, type VERSAMAT, à 9 bains régulés,

— 2 développeuses pour papiers, allant jusqu'au format 120 x 120 cm,

— 4 agrandisseurs, allant jusqu'au coefficient 10 x, voire 40 x,

— 1 redresseur, pour mosaïques contrôlées en couleurs.

Chaque jour voit se confirmer l'intérêt pour une Photothèque de disposer de moyens autonomes, garants de la qualité du service et de la rapidité d'exécution des commandes, qu'il s'agisse de travaux destinés aux techniciens ou au grand public.

4) LES USAGERS ET LES PRODUITS

L'information géographique est au service d'une vaste communauté d'usagers qui recourt à une variété et à un nombre considérable de produits, qu'il s'agisse de plans de base topofonciers à très grande échelle ou d'inventaires thématiques destinés à l'aménagement général du territoire ou à la gestion des équipements communaux.

Les photographies aériennes et plus généralement l'imagerie aérospatiale constituent une source essentielle d'informations géographiques ; leur utilisation va au-delà du seul objectif de production des cartes topographiques de base, pour participer à toute une gamme de travaux ou d'études d'intérêt général, régional ou local, liés à la connaissance de l'occupation du sol et des ressources naturelles.

La répétition des prises de vues reste pratiquement le seul moyen de mettre en évidence les évolutions et d'ouvrir ainsi la voie aux études sur leur dynamique.

Toute la richesse d'informations que contiennent ces images objectives et datées les font appréciées d'une vaste clientèle pour qui la photothèque constitue un point de passage obligé. C'est ainsi que, en ce qui la concerne, la Photothèque de l'IGN (F) a mis sur pied un fichier de 50 000 clients, composé de techniciens, d'habitués ou d'amateurs occasionnels, parmi lesquels on peut relever les catégories suivantes :

— agronomes, forestiers, pédologues, gestionnaires de l'espace rural et d'inventaires sur les ressources de l'environnement,

— urbanistes, aménageurs, décideurs, directeurs départementaux et ingénieurs de l'équipement, projecteurs routiers ou

d'autres grands réseaux de transport (électricité, chemins de fer à grande vitesse...),
— responsables d'études d'impacts,
— agents des services techniques des villes et des collectivités territoriales,
— élus locaux ou représentants des municipalités,
— spécialistes des risques naturels majeurs, pour la cartographie des zones soumises aux glissements de terrain, avalanches, inondations ou incendies de forêts...,
— professionnels qui souhaitent établir un plan, généralement à très grande échelle,
— photo-identificateurs, photo-interprètes,
— géologues, géomorphologues,
— membres du corps enseignant, et plus particulièrement géographes,
— étudiants ou techniciens voulant retracer l'évolution d'un site sur une longue période,
— archéologues,
— ou tout simplement particuliers qui désirent une vue généralement agrandie de leur localité ou de leur résidence, voire particuliers, en procès, qui désirent prouver sur un agrandissement d'un cliché ancien, l'existence incontestable d'un détail particulier.

Chaque jour s'allonge et se diversifie la liste des usagers des photographies aériennes ; chaque jour se valorisent les collections de la Photothèque au service de l'économie nationale.

Les objectifs poursuivis amènent la plupart des usagers, une fois terminée la consultation des tirages-témoins, à souhaiter acquérir rapidement des copies ou des produits dérivés, plus ou moins élaborés. On ne saurait négliger ce rôle de production que doit être capable d'assumer en permanence toute photothèque.

C'est ainsi que celle de l'IGN reçoit chaque année environ 5.000 demandes téléphoniques et 10.000 lettres de commande. Chaque jour il lui faut assurer une production d'environ 500 tirages contact et 60 agrandissements de tous formats. Précisons bien que ces chiffres ne concernent que la production pouvant être qualifiée d'occasionnelle puisqu'elle est effectuée à partir des négatifs d'archives, et non de travaux issus de commandes des prises de vues nouvelles effectuées pour les grands organismes publics comme l'Inventaire forestier national, l'Inventaire permanent du littoral, ou l'IGN (F).

La Photothèque de l'IGN (F) a ainsi atteint par exemple pour l'année 1985, toutes productions confondues, les chiffres de 60.000 contretypes, 315.000 tirages noir et blanc, 20.000 agrandissements noir et blanc et 12.000 tirages couleurs réalisés sur demande. On constate pour 1986 un accroissement sensible de la production d'agrandissements en couleurs naturelles. Les tirages en contact constituent environ 40 % des ventes, les agrandissements partiels au format moyen 50 x 50 cm également 40 % et les agrandissements entiers 10 %. Le reste, soit 10 % environ, comprend des produits plus élaborés (assemblages, mosaïques contrôlées, ou orthophotographies).

5) CONCLUSIONS

Les quelques exemples qui précèdent attestent de la vitalité de la photographie aérienne et du succès qu'elle rencontre depuis des décennies tant auprès du grand public que des usagers techniques. L'image géographique support privilégié de la connaissance, de la mémoire et de la modélisation de l'espace terrestre est l'outil indispensable au développement d'un pays. Des inégalités subsistent dans le monde ; des restrictions freinent souvent encore l'usage de cette documentation si précieuse. Pourtant l'ère spatiale dans laquelle nous sommes entrés depuis 30 ans maintenant devrait, avec l'essor que connaît l'observation stéréoscopique et à haute résolution de la terre par satellite et qui fait perdre aux frontières beaucoup de leur importance, faciliter le rapprochement entre les hommes. Le libre accès aux données spatiales sur des bases non discriminatoires dans le cadre d'une politique d'ouverture du ciel devrait entraîner peu à peu une libéralisation de l'accès des intéressés aux autres données de leur propre pays, comme les photographies aériennes, sous le contrôle bien entendu de leurs autorités nationales ou locales.

L'heure est au partage de l'information géographique (Martinand, 1987) et aux échanges en coopération, à commencer par les échanges à l'intérieur de chaque pays. Le danger n'est pas dans l'excès de diffusion des données mais dans son inverse. Le risque est de ne pas utiliser à temps et à un niveau suffisant ce trésor irremplaçable que constituent les collections de données aérospatiales et qui font concourir l'histoire à la géographie ; tout manquement injustifié dans l'exploitation de ces données dans un pays est un manque à gagner pour le pays lui-même, un frein dans la maîtrise, la gestion de son territoire et pour son développement. La 11ème assemblée générale de l'EARSEL en mai 1987 pressait l'ASE et la CCE de donner la plus grande priorité au développement des techniques permettant d'analyser et de diffuser l'énorme quantité de données de télédétection désormais disponibles. Est-ce en réponse à ce vœu que l'ASE vient de décider la création d'un centre spécialisé dans l'archivage et le traitement des données radar de ERS-1 ? Ce centre, qui sera situé à Brest (France), devrait être opérationnel vers 1990.

Est-ce que ce qui se fait avec le spatial et la télédétection pourra peu à peu entraîner ce qui reste à faire pour l'aérien et la photogrammétrie ?

Souhaitons que l'information géographique, richesse nationale parmi tant d'autres et que chaque pays devrait être fier de montrer, comme il le fait pour d'autres richesses, bénéficie peu à peu du même statut.

Souhaitons inversement que l'information géographique d'origine spatiale recueillie par les organismes qui possèdent les systèmes d'observation de la Terre puisse parvenir sans obstacles financiers majeurs auprès des pays concernés et que ceux-ci aient la volonté et la possibilité d'acquérir le savoir-faire leur permettant d'exploiter les images spatiales de leur propre territoire. Ainsi se rapprocheront définitivement l'aérien et le spatial pour le plus grand bien de chacun, dans l'équilibre de notions telles que celles de commercialisation immédiate, de secret militaire et d'utilité sociale de l'information géographique.

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La Financiación de las cartotecas en España

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RESUMEN

Este trabajo se ha dividido en dos partes. La primera está dedicada al tema de la Cartoteca en tanto que centro dependiente de un organismo superior. La segunda está dedicada a la financiación de las cartotecas en España, estudiada a partir de los porcentajes que indican la cantidad destinada a su mantenimiento y promoción. Para ello se han escogido siete cartotecas representativas, tres correspondientes a Barcelona y cuatro situadas en Madrid. Todo ello con el objetivo de averiguar la situación actual y estudiar si se sigue una política adecuada o si es necesario verificar algún cambio en su orientación.

I. LA CARTOTECA EN TANTO QUE CENTRO ESPECIALIZADO

La organización IFLA incluye a las cartotecas dentro de la sección de Bibliotecas especializadas. Así pues los objetivos del trabajo serán : presentar el estado actual de la cuestión en estos centros, hacer una valoración actual y sacar algunas conclusiones de cara al futuro ; en realidad, tanto por el tratamiento bibliotecario del material especial que la compone (documentos cartográficos), como por la necesidad de una biblioteca complementaria. No hay que olvidar que la triple misión de un centro de este tipo — biblioteca, archivo, fonoteca, cartoteca, hemeroteca, etc. — es reunir el material adecuado, conservarlo y ponerlo al alcance del público.

La biblioteca de soporte de una cartoteca debe estar formada básicamente por obras de referencia que pueden clasificarse en obras de tipo general — diccionarios, enciclopedias, directorios — y obras, también de referencia, de tipo especializado, en este caso sobre cartografía. En primer lugar una buena colección de atlas históricos y actuales de diferentes países aunque en principio con una especial atención a los atlas referidos al propio país y también bibliografías, catálogos, diccionarios, repertorios, etc. sobre el tema. Otro tipo de obras pueden ser de la cartografía : monografías sobre cartógrafos, estudios generales o particulares, etc.

La vinculación de una cartoteca con el mundo bibliotecario

es evidente, pues y de hecho, nosotros estamos reunidos en esta sesión en tanto que bibliotecarios especializados.

Sin embargo, hay que considerar también la relación entre el ente cartoteca y el ente archivo. La obra *Manuel d'Archivistique. Théorie et pratique des Archives publiques en France*, elaborada por la "Association des archivistes français", Paris, 1970, considera el documento cartográfico, juntamente con el documento iconográfico, dentro de la serie de documentos no textuales ("figurés") presentes en la mayoría de los archivos, tanto si se trata de piezas manuscritas como de documentos impresos.

También hay otro aspecto a considerar en esta relación cartoteca/archivo. El archivo de una cartoteca está formado en su sentido más estricto por los documentos previos que han sido necesarios para la confección de un mapa o plano : se trata de las libretas de campo, los cálculos topográficos posteriores, las minutas, croquis, etc. o para la confección de la cartografía actual, también de las fotografías aéreas o los datos informatizados guardados en soportes magnéticos.

1.1 Tipos de centros que pueden albergar cartotecas

Vistos ya los elementos básicos de las cartotecas podemos señalar el hecho que siempre están adscritas a una unidad superior y que corresponde, en la mayoría de los casos, a Biblioteca Nacional, Biblioteca Universitaria, Instituto Geográfico, Archivo, Museo. La relación de la cartoteca con estas grandes instituciones está en función de la propia estructura interna de estos centros. Veamos una breve descripción de cada uno de ellos.

BIBLIOTECA NACIONAL : Biblioteca subvencionada por el gobierno de cada país y puesta a su servicio. Tipo de institución de conservación del libro que tiene el carácter de archivo de la producción intelectual impresa en el país o relativa al mismo, además de la bibliografía más valiosa de las naciones extranjeras. Se considera biblioteca más cercana al concepto de investigación que al de divulgación.

INSTITUTO GEOGRAFICO : Institución gubernamental con el fin de producir y editar la cartografía oficial básica a diferentes escalas según las características geográficas territoriales. Una de las unidades base es la escala 1 :50.000. La necesidad de una cartoteca en un centro de este tipo es obvia. Se nutre de su propia producción, ampliable a la de los institutos geográficos de los otros países del mundo.

ARCHIVO : Es uno o más conjuntos de documentos, sea cual sea su fecha, forma y soporte material, acumulados en un proceso natural por una persona o institución pública o privada, en el transcurso de su gestión y conservados, respetando aquel orden, para servir como testimonio e información para la persona o institución que los produce, para los ciudadanos o para servir de fuente histórica. El material cartográfico en un archivo tradicional se encuentra en algunas series que por su idiosincrasia requieren algún tipo de ilustración a menudo cartográfica (plano, proyecto, boceto,...). También se da la situación de un centro donde existe una colección cerrada de material cartográfico. En este caso el fondo se considera archivo.

MUSEO : Local donde se exhiben objetos de interés de cualquier tema, con horario de visita para el público. La naturaleza de ciertos museos supone la presencia de mapas, planos o vistas de ciudades. Generalmente fuera de la áreas de exhibición existe un local de estudio donde es posible consultar una buena colección de estos materiales. Los museos marítimos y de historia de cada ciudad son los más propicios para estas secciones paralelas a las del propio museo.

1.2. Niveles de la Administración superiores de una cartoteca. El caso de España

Dentro de la actual administración del estado español se distinguen tres niveles : **Administración central**, que tiene competencia en todo el estado ; es el tronco principal de esta organización y sirve de marco a las demás administraciones. **Administración autónoma**, que tiene competencia en una Comunidad autónoma. Con la declaración de España como "estado de autonomías" en la Constitución de 1978, se constituyeron 17 comunidades autónomas como un nivel medio de la administración entre el gobierno central y los municipios. Cada una de ellas goza de determinadas competencias emanadas de la Administración central. **Administración local**, que ejerce el Ayuntamiento en su municipio. Esta organización, que cuenta con una larga tradición, tiene un marco de actuación propio que le permite disfrutar de determinados privilegios como ente con personalidad jurídica propia.

Cada uno de estos tres niveles descritos tiene facultades para organizar bibliotecas, archivos, cartotecas, etc. por lo cual en España disponemos de centros diversos totalmente independientes entre sí. Esto no implica que no pueda haber acuerdos de todo tipo (unificación de criterios de catalogación, préstamos de piezas, intercambio de información) entre ellos.

1.3. Algunos ejemplos de centros españoles que disponen de material cartográfico

De todas las instituciones españolas que albergan cartotecas, se han seleccionado *siete* como ejemplo de las distintas organizaciones que pueden darse, combinando el tipo de centro a que pertenecen y el nivel de administración que las financia. Antes de pasar a valorar sus presupuestos, creemos necesario hacer una breve presentación de su historia y fondos. Son las siguientes : en Madrid : Biblioteca Nacional de España, Instituto Geográfico Nacional, Servicio Geográfico del Ejército y Museo Naval ; en Barcelona : Biblioteca de Catalunya, Institut Municipal d'Història y Institut Cartogràfic de Catalunya.

BIBLIOTECA NACIONAL DE ESPAÑA

Clase de centro : Biblioteca Nacional. Administración de la cual depende : Central. Ministerio de Cultura. Con sede en Madrid, tiene su origen en la Biblioteca Real, fundada por el rey Felipe V en 1711. A partir de 1881 aparece una "Sección de mapas y planos" que es suprimida en 1892, cuando la Biblioteca se traslada a otro edificio ; pero reaparece en 1945, definitivamente consolidada. Fondos de la sección de mapas :

- mapas antiguos. Tiene una importante colección de mapas antiguos de España y América procedentes de la antigua Biblioteca Real y de bibliotecas particulares, en números superiores a 3.000, 600 de los cuales son manuscritos.
- mapas modernos. Por ser la Biblioteca Nacional, posee 2 ejemplares de todo el material cartográfico publicado en España ; actualmente suman más de 7.000 hojas. También cuenta con una biblioteca de apoyo con un millar de libros anteriores a 1900, muchos de los cuales son atlas de los s. XV a XVIII y más de 5.000 títulos referidos a temas de geografía, astronomía, cartografía, etc. Finalmente cabe señalar que desde 1971 tiene en depósito permanente los fondos de la Biblioteca de la Real Sociedad Geográfica : unos 5.000 volúmenes y más de 8.000 mapas, la mayoría de ellos del s. XIX.

INSTITUTO GEOGRÁFICO NACIONAL

Clase de centro : Instituto Geográfico. Administración de la cual depende : Central. Ministerio de Obras Públicas y Urbanismo. Se fundó en 1870 con la misión de levantar el Mapa Topográfico Nacional 1 :50.000 y los atlas nacionales y de llevar a cabo los trabajos del catastro topográfico parcelario. En los últimos años ha dedicado una atención especial a la cartografía histórica. Sus fondos se han incrementado según sus posibilidades presupuestarias. Su cartoteca cuenta en las actualidad con unos 70.000 mapas y 270 atlas.

SERVICIO GEOGRÁFICO DEL EJERCITO

Clase de centro : Instituto geográfico. Administración de la cual depende : Central. Ministerio de Defensa. En 1838 se funda el Depósito de la Guerra, encargado de la confección y custodia de los mapas y otros documentos necesarios para la dirección de las campañas y de la custodia de los conservados hasta entonces en la Secretaría y Despacho de Guerra. En 1901 adquiere la colección privada del Dr. Rico y Sinobas (unos 13.000 mapas y planos y 200 atlas) y la del Coronel Coello (unos 4.700 mapas y planos). Por otra parte, aumentan los fondos de su Cartoteca con las producciones del Cuerpo de Estado Mayor y las propias del Depósito. En 1939 fue creado con el nombre actual de Servicio Geográfico del Ejército, entidad que hereda, con las funciones del antiguo Depósito, su Cartoteca. Ésta se divide en 2 secciones : Histórica y Moderna. La primera comprende 25.770 mapas y planos, así como 286 atlas, anteriores unos y otros al s. XX. La sección moderna tiene un número similar de mapas, además de los atlas más acreditados.

MUSEO NAVAL

Clase de centro : Museo. Administración de la cual depende : Central. Ministerio de Defensa. Fundado en 1874, inició su Cartoteca en 1932 con la incorporación de los fondos del Depósito Hidrográfico de la Marina ; conserva una interesante colección de cartografía generada por las distintas comisiones hidrográficas creadas desde el s. XVIII hasta finales del s. XIX. Este fondo tiene su origen en la Dirección de Trabajos Hidrográficos, creada en 1779 como ampliación del Depósito Hidrográfico que venía funcionando desde 1770. Esta colección es consultable desde 1932 en la Cartoteca del Museo Naval ; está constituida por cartografía marítima histórica de América, Filipinas, Europa y España de los s. XVIII y XIX.

BIBLIOTECA DE CATALUNYA

Clase de centro : Biblioteca Nacional. Administración de la cual depende : Autónoma. Se rige por un consorcio creado para este fin, en el qual participan 3 organismos oficiales diferentes (Generalitat de Catalunya, Diputación de Barcelona y Ayuntamiento de Barcelona) además del Institut d'Estudis Catalans. Cada institución hace una aportación distinta, siendo las 2 primeras las que costean mayoritariamente su financiación. A pesar de la representación de la administración local la hemos considerado autónoma porque el ámbito de sus funciones es claramente el de la Comunidad Autónoma.

Abierta al público en 1914, la Biblioteca de Catalunya es una de las obras más importantes que llevó a cabo el Institut d'Estudis Catalans, que desde su fundación (1907) se preocupó de organizar la biblioteca que recientemente ha sido designada como Biblioteca Nacional de Catalunya. Este centro dispone de 5 secciones especiales, de las cuales la de "Gravats, Estampes i Mapes" (Grabados, Estampas y Mapas) fué organizada en 1923. Los fondos de dicha sección se formaron básicamente a partir de donaciones particulares ; últimamente se han visto incrementados con la colección de Mn. Ignasi Colomer, que cedió sus mapas al Institut d'Estudis Catalans en 1975, depositándolos éste a la Biblioteca. Actualmente la sección consta de unas 11.000 piezas entre mapas, planos y vistas principalmente de Cataluña, pero también del resto de España, así como de una importante colección de atlas históricos.

INSTITUT MUNICIPAL D'HISTORIA

Clase de centro : Archivo. Administración de la cual depende : Local. Ayuntamiento de Barcelona. Inaugurado en 1922, fué la culminación de una serie de medidas dictadas por el Ayuntamiento de Barcelona desde 1916 para preservar la documentación histórica del municipio. Este archivo, que reune todo tipo de material organizado en diversas secciones, dispone desde 1925 de una "Sección de gráficos" que incluye el material cartográfico. También dispone de una biblioteca, una hemeroteca y un fondo fotográfico. Desde 1943 se denomina oficialmente "Institut Municipal d'Història". Su material cartográfico está formado por unos 6.000 mapas, planos y vistas referentes principalmente a Cataluña y España. Cabe destacar de entre sus fondos una buena muestra de mapas y planos de Barcelona-ciudad, muchos de ellos originales, que constituyen una de las colecciones más exhaustivas de cartografía urbana barcelonesa.

INSTITUT CARTOGRAFIC DE CATALUNYA

Clase de centro : Instituto Geográfico. Administración de la cual depende : Autónoma. Generalitat de Catalunya. Dpt. de Política Territorial i Obres Públiques. Fué creado por ley en 1982 como el Servicio cartográfico oficial de la Generalitat de Catalunya, el gobierno autónomo de Cataluña. Los trabajos del ICC consisten en la producción de cartografía topográfica básica a escalas 1:500 hasta 1:25.000 así como de mapas temáticos y mapas a partir de imágenes de satélite, además de otras tareas como el mantenimiento de la red geodésica o la elaboración de Sistemas de Información Geográficos.

En 1985 fué creada por decreto la Cartoteca de Catalunya (CTC), como una sección del ICC, con la misión de recoger, coordinar y estudiar, además de la producción del propio instituto, todo tipo de documentación cartográfica tanto antigua como moderna. La CTC dispone de mapas de todo el mundo, pero pone un especial énfasis en los de Cataluña y el estado español, ocupándose de su tratamiento técnico, difusión y conservación. Está estructurada en 4 áreas :

1. **Cartografía**. Consta de 3 apartados cronológicos :
   a) Cartografía histórica. Comprende mapas anteriores a 1875.
   b) Cartografía histórica moderna. Comprende toda la producción cartográfica desde la publicación de la 1a hoja del *Mapa Topográfico Nacional de España 1:50.000* (1875), hasta 1960.
   c) Cartografía contemporánea. Incluye toda la producción cartográfica catalana y española a partir de 1960 y un importante fondo de mapas topográficos de países del extranjero, que va incrementándose día a día.
2. **Biblioteca**. Está formada por obras de referencia, catálogos, repertorios, etc. También dispone de un fondo de atlas nacionales y temáticos de diversos estados, así como una incipiente colección de atlas históricos y obras de interés geográfico y cartográfico.
3. **Archivo fotográfico**. Recoge fotografías en distinto formato que reproducen mapas y planos de Cataluña depositados en otras instituciones, tanto en la misma Cataluña como en España y el extranjero. También contiene un gran volumen de información cartográfica y bibliográfica microfilmada.
4. **Archivo documental**. La CTC también dispone de fondos documentales, en su mayoría de procedencia privada, que tienen relación con el mundo de la geografía, el urbanismo, la astronomía, etc.

II. ALGUNOS EJEMPLOS DE FINANCIACIÓN DE CARTOTECAS EN ESPAÑA

2.1. Cuadro-resumen de los datos obtenidos

La obtención de los datos de financiación de las cartotecas descritas más arriba se efectuó mediante encuesta. Se mandó un cuestionario en el cual se pedía qué tanto por ciento del presupuesto general de la institución — las cantidades exactas se consideran información interna — se asigna a la cartoteca. Para obtener un marco de referencia más amplio, también se interrogaba sobre qué % representaba el presupuesto de la institución respecto al organismo administrativo del cual depende. Las respuestas fueron muy desiguales y sobretodo bastante imprecisas. De todo ello hemos elaborado un cuadro-resumen que damos al final de la ponencia como anexo.

2.2. Comentarios en torno a los resultados

Con los datos sobre financiación obtenidos, vemos claramente que la mayoría de las cartotecas no disponen de presupuesto. Este hecho, evidentemente, no significa que no se invierta en ellas, sino que no tienen una partida presupuestaria asignada antes de empezar el año. Ello es una consecuencia del hecho que las cartotecas forman parte de una entidad superior que las engloba. De ahí que los gastos de personal, mantenimiento, etc., no se consideren específicos de la cartoteca, sino que están incluidos en la contabilidad general. Por ello al hablar de presupuesto de una cartoteca, generalmente nos referimos a una pequeña parte de sus gastos, que, muchas veces, coincide con el capítulo de las adquisiciones. En el cuadro que elaboramos hemos reflejado los datos que nos han transmitido las propias cartotecas : la consideración de "inapreciable", la han formulado las propias instituciones y en muchos casos se desconocen las cifras de los presupuestos de años anteriores. Debemos tener en cuenta que los presupuestos de los organismos de la administración de las cuales dependen las instituciones estudiadas son muy distintos entre sí. No sólo no es lo mismo el presupuesto de un ayuntamiento comparado con el de un ministerio, sino que también entre ministerios las diferencias son substanciales : no es lo mismo un % del presupuesto del Ministerio de Cultura que el mismo % en el Ministerio de Defensa. Finalmente, la columna referida a personal nos puede dar una idea de la importancia de las cartotecas a partir del personal que se les destina. Es curioso constatar cómo en este apartado no se siguen unas pautas claras de actuación según el tipo de centro o nivel de administración. Cada institución sigue sus propios criterios y llama la atención el contraste entre el personal destinado a los distintos centros, muy lejos de cualquier posibilidad de generalización. La conclusión más evidente es sin duda la falta de un presupuesto específico para las cartotecas, consecuencia de su dependencia de una unidad superior y la falta de unos modelos de administración definidos para estas secciones.

III. CONCLUSIONES

En el estado español ha habido estos últimos años una política de mejora de las bibliotecas, archivos, etc. dependientes de la Administración Pública : por tanto las cartotecas se han visto directamente favorecidas. Aunque con sensibles diferencias de unas a otras, muchos centros se han replanteado las condiciones de conservación de su material de cara a una modernización de sus instalaciones : han empezado a poner en marcha, de momento en fase de proyecto, modernos sistemas de catalogación homologados internacionalmente y en algunos casos informatizados. Los costos de este proceso o bién forman parte de un proyecto global, como en el caso de las bibliotecas, o bién se han asignado una partida presupuestaria extraordinaria, como ocurre con el IGN. La forma de entrada de nueva documentación cartográfica y bibliográfica sigue siendo la tradicional en la mayoría de los casos, es decir, las donaciones públicas o de particulares. Los institutos geográficos se nutren de sus propias publicaciones y de intercambios : las bibliotecas nacionales cuentan con el Depósito Legal. Las cartotecas de más reciente creación son las que disponen de

ALGUNOS DATOS SOBRE LA FINANCIACION

INSTITUCION	SECCION	ADMINISTRACION SUPERIOR	PRESUPUESTO CARTOTECA(1)					PRESUPUESTO INSTITUCION(2)					PERSONAL(3)
			85	86	87	88	89	85	86	87	88	89	
BIBLIOTECA NACIONAL	Sección de Mapas y Planos	MINISTERIO DE CULTURA					0,14					4,04	10
INSTITUTO GEOGRAFICO NACIONAL	Cartoteca	MINISTERIO DE OBRAS PUBLICAS Y URBANISMO	ip	ip	ip	ip (4)	ip				1,25	0,83	3
SERVICIO GEOGRAFICO DEL EJERCITO	Cartoteca	MINISTERIO DE DEFENSA	n	n	n	n	n	ip	ip	ip	ip	ip	9
MUSEO NAVAL	Cartoteca	MINISTERIO DE DEFENSA	n	n	n	n	n						2
BIBLIOTECA DE CATALUNYA	Secció de Gravats, Estampes i Mapes	CONSORCIO (5)	n	n	n	n	n			0,58 (6)	0,78 (6)	0,82 (6)	3
INSTITUT MUNICIPAL D'HISTORIA	Secció de Gràfics	AJUNTAMENT DE BARCELONA	n	n	n	n	n		0,7	0,7	0,7	0,7	2
INSTITUT CARTOGRÀFIC DE CATALUNYA	Cartoteca de Catalunya	GENERALITAT DE CATALUNYA DPT. DE POLITICA TERRITORIAL I OBRES PUBLIQUES	0,23	0,57	2,28	1,29	1,56	1,41	1,38	1,66	1,73	2,64	8

mayor volumen de material adquirido, al no disponer de fondos históricos. Las cartotecas de los institutos geográficos reciben un trato más prioritario debido a su singularidad dentro de la institución. No ocurre lo mismo con las cartotecas de archivos y bibliotecas, ya que al tratarse de secciones especiales quedan en segundo término en los procesos generales, sobre todo cuando se aborda la informatización de los fondos. La diversidad de centros no impide que haya acuerdos interinstitucionales para llevar a cabo en común proyectos de distinta índole. Así el IGN y el ICC, entre otros, elaboran conjuntamente el formato MARC para materiales cartográficos y actualmente el Museo Naval y el Servicio Geográfico del Ejército están confeccionando un catálogo informatizado de cartografía de América.

En resumen podemos hablar de una dinamización de las cartotecas españolas como reflejo de nuevas inversiones, a pesar de no disponer de un presupuesto exclusivo y formar parte de una unidad superior. La financiación indirecta frena las adquisiciones, pero también permite disponer en un momento dado de considerables apoyos económicos o de equipamientos y servicios de otra manera muy difíciles de obtener.

Hay una tendencia a dotar a las cartotecas cada vez más de un presupuesto propio (...) Esta política permite seguir gozando de las ventajas que supone su integración en un cuerpo mayor al mismo tiempo que dispone de un marco de actuación propio. Encontrar el punto justo de coordinación entre los dos canales de financiación puede ser una solución en un futuro no muy lejano.

Agradecimientos

La realización de esta ponencia no hubiera sido posible sin la colaboración de las siguientes personas que nos han facilitado los datos referentes a sus instituciones. Damos las gracias a todas ellas : Carmen Liter (Biblioteca Nacional), José Cruz Almeida (Instituto Geográfico Nacional), Angel Paladini (Servicio Geográfico del Ejército), Mª Luisa Martín-Merás (Museo Naval), Manuel Mundó (Biblioteca de Catalunya) y Anna Mª Adroer (Institut Municipal d'Història)

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Cuadro : Algunos datos sobre la financiación

Notas al cuadro sobre financiación

(1) : el presupuesto de la cartoteca se ha calculado respecto al de la institución y no lleva incluida la partida referente a personal

(2) : el presupuesto de la institución se ha calculado respecto al de la administración a la cual pertenece

(3) : en 1989

(4) : este año la cartoteca del Instituto Geográfico Nacional dispuso de un presupuesto extraordinario para la realización de un Formato MARC para materiales cartográficos, junto con otras instituciones. Por tratarse de un proyecto que traspasa las actuaciones de la misma cartoteca, no lo hemos incluido en el presupuesto ordinario

(5) : véase la descripción que hacemos de este Consorcio en el capítulo anterior

(6) : el % se ha calculado a partir del promedio de los presupuestos generales del Departament de Cultura de la Generalitat y de la Diputación de Barcelona, que son las instituciones que financian a la biblioteca

n : no tiene

ip : inapreciable

Los espacios en blanco significan que se desconoce la información

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86-GEO-1-E

PC-CARTONET : a microcomputer version of the CARTONET map library automation system

Barbara MORRIS [et al.], *Business Manager, Geographical Information Systems, Applications Unit, University of Edinburgh, UK*

ABSTRACT

The CARTONET 1 Map Library System was originally developed on VAX mini computers. It has subsequently been installed on VAXes of varying sizes in both large and small libraries. Advances in computing hardware, giving more power at lower prices, have made a PC-based version of CARTONET 1 a feasible alternative for libraries with more limited resources. As data held in CARTONET 1 and PC-CARTONET adheres to international standards the possibility of data sharing in automated National Carto-bibliographies and International Union catalogues of maps becomes feasible.

PC-CARTONET is a microcomputer version of the CARTONET map library automation system

1. Hardware

PC-CARTONET will run on the IBM PC range and all 100 % compatibles which support ORACLE. These include the IBM PC AT and IBM PS2 models and good clones such as the DELL 386. PC-CARTONET requires at least 2 megabytes of memory, an Enhanced Graphics Adaptor (EGA) and a high resolution graphics monitor.

2. Software

PC-CARTONET uses the DOS operating system which is widely available. As with the VAX/VMS version of CARTONET 1, catalogue records are held in the ORACLE Relational Database Management system and interfaced with special-purpose computer graphics for interactive searching.

3. Current differences between VAX and PC versions

3.1 User interface :

One of the main differences between PC-CARTONET and CARTONET 1 is its appearance to the user. PC-CARTONET has been designed to take advantage of the special facilities available on this type of microcomputer. Terminals which support WINDOWS provide an extremely attractive operating environment for PC-CARTONET users. It is possible to select various operations by using a mouse and cursor to point to and select the appropriate commands from pull-down menus. The system converses with the user by means of these pull-down menus and dialogue boxes. For example, if a user goes into graphic searching using a pull-down menu, a second menu is presented which includes the choice of setting up a box, or polygon or a point and radius or distance search. WINDOWS provides the capability to relocate a window on the screen, move icons to a window, reduce a window to an icon, expand a window to the full size of the screen or reduce it, and panning of window contents by means of the scroll bar. It will be possible to make some of these attractive facilities available in due course on state of the art workstations as the windowing technology develops in the computer industry.

3.2. Data Sharing :

PC-CARTONET offers the possibility of sharing catalogue records between institutions by the exchange of floppy disks. This will avoid some of the communications hazards experienced when transferring records over a network. The technology for networking between countries has not yet been perfected although experiments in dataloading were successfully carried out within the United Kingdom over the Joint Academic

Network (JANET) during the British Library-funded CARTONET research project.

3.3. Cost :

The cost of setting up a PC-CARTONET installation is relatively low compared to a VAX-based system. It also has the advantage that a number of PCs can be networked together at a later date when the demand for additional terminals arises.

4. Future differences between VAX and PC-CARTONET

4.1. CD-ROM storage for catalogue records :

Experiments are under way to store catalogue records on CD-ROMs attached to a PC. This would have the advantage of being able to store very large numbers of records such as a National Cartobibliography or Union Catalogue which might previously have required a much bigger computer. Only the local map library records would then be held on the main database in the PC, or bibliographical records stored on the CD-ROM could be supplemented with specifically local information held on the PC.

4.2. CD-ROM storage for graphics :

The current VAX version of CARTONET 1 and PC-CARTONET are supplied with World Data Bank II (WDB II) as standard. WDB II is used as a digital outline on which to search and display map holdings. Digital maps take up large amounts of storage space in computers so experiments are also in hand to store these background maps on a CD-ROM attached to a PC.

4.3. CARTONET interface to other major bibliographical utilities :

A Geo-referenced Information Network is at the design stage in the Research Library Group (RLG) in California. The CARTONET team is collaborating with RLG. One possible outcome might be adapting PC-CARTONET to act as a route into the RLG's SPIRES database of catalogue records, to give interactive graphic searching in individual libraries using RLG's system.

5. New facilities in CARTONET 1 on VAXes

Some of these facilities are already available in PC-CARTONET. Others will appear in due course as the hardware technology develops to support them.

5.1. Detailed digital background maps :

Where users require a more detailed digital background for graphic searching than that provided by WDB II larger scale digitised maps can be incorporated as an optional extra. [WDB II was digitised for the U.S. Central Intelligence Agency in 1977 at scales of between 1 : 1,000,000 and 1 : 3,000,000. It comprises only coastlines, rivers, international boundaries and the state boundaries of the United States of America.] For the UK digital maps created by the Ordnance Survey at a scale of 1 : 625,000 or by John Bartolomew Ltd. at a scale of 1 : 250,000 can already be licensed and incorporated into CARTONET 1 and PC-CARTONET. Large scale digital maps of other countries could be integrated on request.

5.2. Upgrading of cataloguing facilities :

In the light of user evaluation and the release of a more sophisticated Form Generating Utility in ORACLE, the CARTONET cataloguing forms, data validation and verification, and the supporting help information have been greatly enhanced. The screen layout has been redesigned to be more familiar and attractive to traditional cataloguers and to take them through a series of logical processes. A large number of complex triggers has been built in to check the catalogued information as it is entered to provide strict quality control of the data but these complex operations are hidden from the user. Provided cataloguing is done on-line rather than via data preparation forms, the on-screen prompts and HELP in CARTO-NET 1 and PC-CARTONET will act as training tools for cataloguers inexperienced in *Anglo-American Cataloguing Rules (AACR2)* and the MARC format. One line of HELP is available on-screen for every catalogue field. These simple instructions are supplemented by more substantial HELP with numerous examples on pressing the HELP key.

5.3. Setting a standard for cataloguing map sheets :

When the British Committee for Map Information and Cataloguing Systems (BRICMICS) was considering the feasibility of establishing a UK Cartographic Records Database it was recognised, from the experience gained during the development of CARTONET 1, that no standard existed for the description in an automated system of map sheets which were part of a series (some 90 % of all published maps !). A draft document was therefore prepared by several members of BRICMICS in 1988 listing which catalogue fields should be Mandatory, Recommended or Optional at Sheet Level and their relation to the Series record held in MARC format. These Descriptive Standards have since been incorporated in the latest releases of CARTO-NET 1 and PC-CARTONET.

5.4. Spatial searching :

When the database of records catalogued in CARTONET 1 by a library was relatively small, it was possible to search for maps via their geographical co-ordinates. However, as databases have become larger an alternative method has had to be adopted. This involves the use of automatically generated MORTON blocks for spatial key searching. The system has been designed to obtain the greatest possible benefit from standard database management system indexes by holding the relevant spatial key information in data base tables.

5.5. Text handling :

In advance of the recent first release of SQL•Text by the ORACLE Corporation, Edinburgh implemented a subset of the functionality of this package for high speed text retrieval for a client. This facility will shortly be incorporated in the VAX version of CARTONET 1 and is planned for implementation on the PC at a later date. It is particularly useful in retrieving information held in character from any catalogue field. A stopword facility is also available and stopwords can differ between catalogue fields.

5.6 Intelligent query processor :

The introduction of text handling and key based spatial searching into the system necessitates a much more sophisticated approach to the processing of user queries than has been required up to now. To meet this need an intelligent query processor has been developed. It performs two major functions, those of query syntax analyser and SQL generator for queries to be passed to the database. SQL is the query language used by ORACLE and many other large database systems. It is now accepted as the American National Standards Institute (ANSI) standard. The query processor allows the user to query the database directly using a specially extended version of SQL which includes additional facilities specifically designed for map data retrieval. Alternatively, form based or graphic searches can be specified by users without any knowledge of SQL.

5.7. Facility to up and down load MARC records :

CARTONET 1 has the facility to read, analyse and store the information contained in MARC bibliographic records. The records may be uploaded from floppy disks or read from VAX/VMS files via a PC-VAX interface. The "analysis" phase involves breaking down the MARC record into its component "fields" which are, in turn, composed of subfields. Each field has a tag and identifiers associated with it, and each subfield has, in addition to a tag and identifiers, a subfield mark associated with it.

The contents of each subfield are stored as column entries in CARTONET 1 tables. For foreign language records, a facility exists for the storage of diacritics and other special characters which may occur in individual subfields.

Both British Library (BL) and Library of Congress (LC) MARC formats can be handled. These are broadly similar, but some variation occurs in certain fields and so a user-prompt is issued to establish the type of record format before processing of the records begins. The UNIMARC formats for bibliographic data differ significantly from BL and LC and so far the facility has not been extended to cope with UNIMARC.

The facility is to be further developed in order to perform the reverse operation of retrieving MARC subfields from CARTONET tables, reconstituting the MARC records and downloading them to floppy disc.

Conclusion :

In both CARTONET 1 and PC-CARTONET, identical versions of the system are distributed to all users. However, each site can also be supplied with an individually tailored LOCAL table for shelfmark, accession date, notes, links to other collections, etc., rather like the 9 tags in MARC. Experienced ORACLE users may design and implement their own LOCAL table. The standardisation of the main System means that there is a real possibility of national and international exchange of records of individual map sheet holdings being achieved in the UK, Europe and further afield. The EEC "Action Plan for Libraries" is an example of the upsurge of interest in the efficient provision of information which might allow this ideal to be attained.

Paper written with the collaboration of Frances DONEGAN.

64-SCIE-2-E

Alternatives to Public Funding of University Science and Technology Libraries : the North American Experience

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ABSTRACT

Science and technology units of university libraries can benefit from the development (fund-raising) activities of their parent institutions either through specific endowments or through sharing in the funds raised in a major campaign. Other strategies used to raise funds to augment the publicly-supported part of the budget include book sales, senior class gifts, alumni class gifts, annual program of giving, "adopt-a-journal" program, or "library is looking for" requests. Success in fund-raising depends on four crucial factors: identification, cultivation, solicitation, and communication. Personal attributes necessary in development activities include a realistic viewpoint, political acumen, patience, opportunism, and preparation. Attracting external grant support has also proven effective with science and technology librarians in securing equipment or solving service problems in their units. A deeper understanding of the skills and techniques used in development endeavors will make science and technology librarians equal partners in the process.

As we near the last decade of the Twentieth Century, most publicly-funded university libraries in the United States and Canada cannot look forward to the levels of support which they had experienced in the past. Within the confines of these more restricted budgets, libraries must balance the need to automate and provide new information services (each with their large capital expenditure) with the continuing needs of the collection. Science and technology units of large research libraries are particularly hard hit by recent developments. Because serials comprise such a significant part of their collections, they are more affected by the erosion of the dollar (many of their more important journals are published in Western Europe) and by the general price increases and number of titles being published. Additionally, science and technology libraries are confronted with service problems related to the changing patterns of enrollment in the university. Science and engineering departments are enlarging their graduate programs. Yet the library units serving this swelling population suffer even now from poor to barely passable facilities. The percentage of library dollars, collection allocation monies, collection space, and reference service functions will need to increase to meet these demands. Because most libraries would obviously rather augment their budget than go through the unpleasant exercise of prioritizing needs in order to make internal reallocations, it is no wonder that university libraries are becoming increasingly interested in fund-raising activities. Actually, development, rather than fund-raising, is the preferred term used to describe a library's commitment in time and creativity to its effort to build collections, facilities, equipment, and services. There is a clear trend in the last five years toward a more sustained effort in development activities in order to raise supplementary funds to augment the regular publicly-supported budget. According to an ARL OMS (Association of Research Libraries, Office of Management Services) Systems and Procedures Exchange Center survey completed in February 1988, major campaign efforts have been added to Friends of the Library programs. (Friends of the Library groups are support organizations operating outside the library's administrative structure to promote the library. Friends groups transmit the library's needs to the community and serve as a source of financial and in-kind donations.) University libraries are also benefitting from the fact that the institutions' fund-raising activities are shifting in focus from an earlier need for new buildings to those aspects of the university central to its educational mission, the library being one of them. Campaign goals for the thirty university libraries in the survey showed a median of $4.5 million over four years. Fifty-eight percent of the respondents indicated that they had designated a current staff member, or hired a new one, to coordinate development activities. In the last four years, these senior development officers have formed a national organization of Library Friends groups of academic libraries.

What should science and technology librarians know about development activities ? First, librarians should be aware that development is an ongoing activity. Second, librarians should remember that most university libraries have considerable control over their own fund-raising efforts while working in close cooperation with the parent institution's development office. Half of the respondents of the 1988 ARL OMS study viewed a general library component within the university campaign as the most successful strategy for gaining support. Science and technology libraries will gain from a "trickle-down" effect. Also, the library's development office may work directly with the department's or college's development office in order to secure needed funding. As an example, the College of Engineering and the Library at the University of Illinois at Urbana-Champaign are working together on locating private funding for a new Engineering Library building.

Science and technology librarians should know how the Library's Development Office goes about its development efforts. Not only can they alert the office of their particular needs, but they are invaluable allies in identifying potential donors. The key to success depends on four crucial factors : identification, cultivation, solicitation, and communication. Identification involves defining both goals and potential donors. It first entails the preparation of a feasibility study, followed by a marketing survey. The feasibility study should include a list of the library's objectives and its constituencies. Individual priorities can be named, each with a suggested monetary amount. The marketing survey should target specific groups. While eighty-eight percent of the ARL OMS respondents stated that the highest success comes from alumni and friends, science and technology librarians can contribute to the identification of another category of donor, the corporation in their subject field, through their extensive knowledge of corporate use of library services in their units. Good will generated by timely provision of information in previous contacts may be put to use by the library's and the university's development programs.

The next step in the development process relies on cultivation of the donor. Even while the library's development officer concentrates on distinct and separate fund-raising goals within the wider context of the campaign, donor interest must be elicited and maintained through individual contacts and personal visits. Events may be staged to heighten participation and interest in the campaign. Development officers know that the first gift is the most difficult to obtain and that the greatest problem to overcome when dealing with alumni is to dispel the notion that they have already paid for their education. However, at many universities, campus development activities have been underway for many years, and alumni have heard the various solicitations long enough to be responsive.

After cultivation of the target groups, solicitation is accomplished by direct mailings, one-on-one appeals, or telephone marathons. Presentation to groups is one of the more important techniques. Recently, libraries have discovered that video programs of the libraries' resources have been successfully used by Friends groups at the national and state level.

Finally, recognition and communication complete the picture of development activities. While many libraries would prefer to receive unrestricted funds, some donors will insist that their gifts be used in some particular way. In these cases, the use of specially designed plaques to identify a reading room or piece of equipment, or of commemorative bookplates will serve to honor the donors in a tangible way. Regardless of the need to recognize, the library's development office should communicate on a regular basis with all of its constituencies. The library must continue to tell its accomplishments and goals to present and prospective donors. There are several means of communication commonly used by university libraries in their development efforts. Some libraries have opted for the glossy, professionally-produced portfolio. Others rely on more traditional means of corresponding with donors : quarterly newsletters, annual reports, or a variety of publicity brochures. Special programs with a speaker from the academic community can be scheduled for the Friends group. Whatever the mechanism, the library must continually make the donors feel a valuable part of the development effort. At the same time the Library should realize that education of the various giving constituencies constitutes an important prerequisite to successful campaigns.

While these development activities are going on, the librarians involved should be strengthening certain skills: a realistic viewpoint, political acumen, patience, opportunism, and preparation. Librarians should realize that some programs will be hard to sell. Therefore, they should focus their efforts on an "attention-getter" such as *Science Citation Index* cumulative indexes rather than on an overall increase in the science library's monograph budget. Obtaining outside funding for the one should enable the library to reallocate internally to cover the latter. For example, the campaign for the University of Texas Chemistry Library seeks an endowment of $100,000 for subsidizing online database searching, computer workstations, CD-ROM databases, etc. All of these needs are considered essential in a modern chemistry library. Librarians should also realize that other interests are competing for the same funds. They should analyze the competition, develop a strategy, and time their appeal. Then they need to develop political skills: funding decisions are often based more on the political environment rather than on persuasiveness or logic. Librarians should know what local and national events are occurring which might impact on the campaign or affect priorities. If necessary, they should be patient remembering that development often takes years to see a "pay-off" and that other sources competing for the same funding will not always have more compelling reasons than the library. On the other hand, librarians should try to be in the right place at the right time, tailoring specific funding requests to specific opportunities. They must be prepared. An information package identifying the library's major needs should be made available for everyone involved in the library's development activities: librarians, alumni agents, etc. A successful campaign requires a constant updating of this informational package.

What kinds of development efforts have proven successful for North American libraries in the past decade? Support has generally come from two areas: fund-raising and external grants. Fund-raising can cover a variety of smaller programs in addition to the major capital campaigns. Some development officers believe that while book sales generate positive feelings with the library's public, they frequently involve too much effort for too little gain. However, the University of Illinois has held annual book sales of its duplicates and donations for years. The revenue from these annual sales, often as much as $5,000, is used for the library's collections. Many libraries report that the annual program of giving, which in itself can bring in an essential piece of equipment, or funds for the collection, or volunteer efforts to clean or shelfread books, performs the very valuable function of identifying prospective major donors. Other programs which have been attempted by North American libraries include the "Adopt-a-Journal" approach, whereby an individual faculty member or Friend may agree to pay the subscription costs of a journal, on a yearly basis, in his/her field of interest. The library's Friends newsletter may solicit specific books or equipment needed by particular departmental libraries in its "Library Looking For" column. This device is most successful in securing items in the $500 or less range. Gifts from the graduating seniors are another means by which modest additions (generally $3,000 to $5,000) to the library's budget can be obtained. These Senior Class gifts are often directed at purchasing equipment (*i.e.*, CD-ROMs) or books for the undergraduate library. Class gifts sponsored by a committee of alumni have become especially important to some university libraries with the contribution ranging from $30,000 to $100,000. Because the library is often able to upgrade facilities (*e.g.*, security systems for branch libraries) with such a major contribution, the members of the gift committee should be given the opportunity to see and share the finished product with special tours.

Finally, applying for external grant support is an area in which individual science and technology librarians can achieve considerable success. It is important that the librarian draft the proposal as he/she will possess the ideas, facts, and persuasive arguments. The development officer will know which private foundations or corporations are known to be sympathetic to library requests and can edit the proposal for marketability. The proposal should match its appeal to the funder's priorities and should show that the investment will have tangible benefits exceeding whatever costs are incurred in the project. A grant is an excellent way to solve problems in the unit (collection inadequacies, retrospective conversion, or subsidized online database searching), gain equipment, and attain national recognition. For example, several of the science and technology libraries at the University of Illinois have successfully applied for grants from the Council on Library Resources, IBM, and the U.S. Department of Education Title II-C "Strengthening Library Resources" program. These grants enabled the Mathematics and Agriculture libraries to catalog (inputting into OCLC) an extensive collection of mathematics monographs reviewed by *Mathematical Reviews* from 1940-1979 and to catalog U.S. Department of Agriculture and agricultural experiment station publications (inputting in OCLC, AGRICOLA, and AGRA). The Engineering Library is developing software to facilitate end-user searching. Funding for the latter project was enhanced by support from database producers and vendors (BRS, BIOSIS, and *Engineering Index*). Challenge grants, on the other hand, are best generated by the development officer as significant sums of money are sought from private corporations or foundations or from federal government agencies. Matching funds are generated by appeals to Friends or alumni to match the dollars given. Response to these appeals is usually enthusiastic as it is difficult to turn down the opportunity.

Thus, there are many ways to bring the additional funds needed by university libraries: major campaigns, smaller fund-raising efforts, or grants. Science and technology units, as part of the library and the university, will benefit from these efforts. It is therefore important that science and technology librarians understand and support development activities.

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63-SCIE-1-E

Document supply by science and technology libraries — is there a role for international organizations ?

Elin TÖRNUDD, *Director of Helsinki University of Technology Libraries, Finland*

The demand for document supply in science and technology is greater than that within social science and the humanities. This is shown clearly from the results of surveys carried out by the world's largest interlending library, the British Library, Document Supply Center[1]. This situation prevails also in other countries, the national library statistics of which show that science and technology libraries are the main suppliers of interlibrary loans and copies. The reasons for this demand are to be found in the research and development effort which is concentrated in the business entreprise sector and accordingly concerns scientific and technological disciplines. The research and development statistics selected by the OECD[2] show a continued increase in the research effort by industry within science and technology.

Another factor contributing to increased demand for document supply is the efficient accessibility of science and technology libraries. This includes the maintenance of online public access catalogues, OPACs, used extensively by industrial customers and other extramural clients. The OPAC of Helsinki University of Technology Libraries was — within a Nordic cooperative program — integrated with that of the Technological Library of Denmark. Document supply requests received

from Denmark increased from 300 in 1985, 600 in 1986, and 800 in 1987 to 1400 in 1988.

The acceptance of document supply requests over teletex, telex, telefax and online as well as urgent action service has further stimulated the demand.

A third reason for the ever greater pressure on science and technology libraries is their rareness compared with other libraries. There are more large university libraries catering for arts than for science and public libraries at least in my country, Finland, prefer to let scientific and technical literature play second fiddle.

Intergovermental organizations

International conventions concerning importation of cultural, educational and scientific material, the so called *Florence agreement* of 1950 and the corresponding *Beirut agreement* of 1948, form the corner stones of international document supply. UNESCO has been instrumental in accomplishing agreements. These might need revision in view of the proliferation of a new kinds of information media.

The UNESCO General Information Programme has during the latest biennia promoted the establishment of regional information networks in which document supply is one important form of regional cooperation. Under the present plan to acquire extra budgetary finance for projects aiming at the improvement of information supply to users in developing countries a twinning program is being prepared. By twinning a library in a developing country with a similar one in an industrialized country document supply is planned to be one of the resulting benefits for the former.

Also other intergovernmental international organizations have contributed to document supply within science and technology. FAO has combined with the Agricultural Information System, AGRIS, the AGLINET program as a document supply reinforcement.

Non-governmental international organizations

As regards NGO's IFLA and its Office for international lending have played a decisive role for international document supply through preparing guidelines — the first ones dating from 1954 and revised in 1978 and 1983. IFLA has also worked out request forms for international document supply and promoted the UAP program with continued sponsorship of the UNESCO General Information Programme.

The contribution of subject-oriented international library organizations, such as the International Association of Technological University Libraries, IATUL, has been greatest for the exchange of experience and in establishing contacts for cooperation.

The International Federation for Documentation and Information, FID, has likewise contributed to cooperation, especially regional cooperation in document supply through its regional commissions.

Problems

Speedy deliveries of documents have during the latest years been hampered by mail irregularities including national strikes. Users of information have suffered and many science and technology libraries have been compelled to adopt a more restrictive policy in regard to loans. Copying services of course have been continued even during strikes using telefax transmission.

Rules regarding online ordering of loans and copies as well as for lending requests and copy deliveries over the telefax vary from country to country and from library to library. The emerging integrated systems data network, ISDN, will increase the speed of deliveries, although ISDN will not become available in all countries at the same time.

Billing small foreign customers — usually industrial companies — and their payments are labour intensive and cause administrative problems. Channelling their orders through a national science and technology library in their country might be worth considering.

Guides like *A Brief Guide to Centers of International Lending and Photo-copying*[3] is as regards national descriptions — examples are Denmark and Finland — strongest for humanities and social science library information. Science and technology, the major document supply sector has been neglected.

The developing countries certainly need encouragement and support of the document supply process. In many cases libraries expect the users to move rather than documents.

There is a role for international organizations: proposed action

With reference to the problems I have pointed out it might be worthwhile to create discipline oriented or mission oriented guides to centers of document supply. The section of science and technology libraries of IFLA and IATUL could be called on to draft a guide to centers in the field of science and technology. The IFLA publication 42 *World Directory of Biological and Medical Sciences Libraries* is an excellent example[4]. Perhaps a seminar could be organized by the section together with IATUL for the managers of interlending units of member libraries. Such a seminar would have two missions:

— to acquaint these key persons with each other and
— to reach concensus on the structure and contents of a guide to science and technology document supply.

International organizations, both governmental and non-governmental will also have an important role in paving the way for international online ordering of loans and copies as well as for lending requests and copy deliveries over the telefax and ISDN. Also here a concensus is needed for the international traffic.

With increased economic constraints document supply by science and technology libraries will continue to grow in volume and in importance. Therefore this gives a leading role for international organizations.

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116-BIOL-2-E

New Approaches to the management of the Medical Libraries in the Czechoslovak Socialist Republic

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Czechoslovak medical libraries are components of two geographically specified networks: a network of libraries on the territory of the Czech Socialist Republic and a network on the territory of the Slovak Socialist Republic. Central controlling and coordinating role is played by two central libraries which are a part of branch information centres of the health and social affairs resort of the Czech Socialist Republic and the health and social affairs resort of the Slovak Socialist Republic (Institute for Medical Information, Prague and Institute for Scientific Health Information, Bratislava). The network in the Czech Socialist Republic is represented by about 140 professional medical statistically followed libraries (in the Slovak Socialist Republic the network is created by about 60 statistically followed libraries) — together with others, statistically not-followed, less significant libraries with a limited fund, both of the networks are represented by about 700 libraries. The reconstruction of the economic mechanism including all the branches of the Czechoslovak national economy inclusive of non-productive tertial sphere penetrates even in the scientific information and library infrastructure. One of the aims of the reforms is a reduction of the bureaucratic methods of management and a transfer to the more flexible economic means conservating the coordinating role of the corresponding centres. Excluding several exceptions, scientific information and library services are provided free of charge — this principle is strictly observed especially in health service in accordance with the principle of unpaid health care of the population. In connection with the implementation of new economic mechanisms starting in 1990 some changes, following from economic relations among budgetary and economic organizations and from realization of self-financing principles are possible. Pre-

sently our society feels a certain degree of underdimensionality of the means expended on the creation and exploitation of library funds and at the same time also financial and moral underestimation of the employees in this field. Gradually decreasing directive role of the central bodies will cause increasing of the library institution independence and flexibility of their relationship to the social practice. The position of the librarian in the society and his overall prestige in comparison with other professions will certainly change in connection with improvement of the atmosphere in the society. The present task of our society is the acceleration of the social and economic development as a result of intensification and increasing of the social production efficiency labour quality and economy. From this reason it is important to accelerate the implementation of the newest results of the scientific and technological development into the productive and social practice to improve the exploitation of present capacities and means for the purpose of obtaining high national-economy effects. It is obvious that the mentioned directions of our society development are closely connected with the scientific and technological information field and unified system of libraries. All information institutions are above all to increase substantially the quality and efficiency of their social activity and contribute pronouncedly to whole society requirement satisfaction, especially to ensure information for science, technology and national economy. Fulfilment of these tasks requires above all to improve systematically the controlling and management system in the sphere of scientific and technological information and unified library system.

In these connections questions concerning the responsibility of the choice and information fund creation are gaining significance vehemently. And they are solved in acquisition sections of particular information institutions. Acquisition, *i.e.* creation and supply of the information fund thus represents a key sphere which as an input phase of information process influences principally all the following spheres of information activities.

New accesses to the acquisition control in the whole state scale concentrate above all on the basic elements of the document acquisition, namely on the questions of profiling and choice of the fund of documents. A summary of parameters determining the individuality of the given document fund to the natural document fund is called a fund profile and profiling of a certain fund is a continuous debugging and comparing of basic fund parameters and formative and information tasks of the given institution with present and future information needs. The fund profile is a result of the mutual action of the whole complex of facts, conditions and influences which can be designed by the term "profiling factors". The first profiling factor is social-formative tasks, fulfilled by each information institution in the socialist society. The effort to influence actively the social consciousness of the users restricts the principal politically ideological criteria and is the condition for the topical structure of the created funds.

The second group of profiling factors is represented by the fact following from the present state and developing tendencies of the social knowledge. Progress in science and technology always stimulated the acquirers to study document bases of the particular scientific branches and to catch up in time all the trends in development, acting in the field of documentary communication.

The third profiling factor category is given by the kind and type of the information institution. The type of each library or information institution namely determinates the basic functional framework of the created fund of documents. Wholestate, branch or resort tasks, controlling and coordinating functions, the range of methodical activity of the given institution, these all are the factors influencing strongly the fund profile. They decide for example about the scope of topical contents, about chronological depth, influencing the typological structure. Also concluded coordinating agreements in the acquisition sphere and document fund usage have a strong influence on the fund profile. Another profiling factor group follows from the institution character to which the appropriate information centre or the library serves. The plans and the aiming of the given institutions are the starting points for the working places, acting within the framework of a certain mother institution. The conditions given by the character of the region where the information centre is acting are important too. All the so far mentioned profiling influences reflect in another category of factors and namely in the composition of users of the given fund and in the contents and structure of their information needs. So we are coming from the objective factors of profiling to the subjective information requirements and needs. They represent the important and direct source of each document fund profiling. Data from analyses of satisfied and unsatisfied requirements of document fund are used already for years as an important and corrective point of view of profiling. The main components of the whole fund profile make topical limitation and kind structure. Determination and observation of the topical profile is enormously complicated matter, because the whole range of phenomena from the sphere of social knowledge and scientific result publication, projecting in the information needs of users, is acting here. Typological fund structure determination represents equally important profiling component. Typological aspects create the primary point of view, especially in the case of funds with universal or very broad topical contents. But even for the topically specialized fund the typological profiling is very significant, because not even the main topical parts, creating the centre of gravity of the topical contents, in practice are never built from all existing kinds of documents. Building a fund, it is necessary to respect also the language knowledge of the users and it determines in a certain degree also the language structure of the documents.

The bibliometrical methods, especially citation and documentation analyses, by means of which we can obtain objective knowledge about the structure of the relevant part of the natural document fund play a great role for the fund profiling. Citation analysis in the function of acquisition method is used above all at evaluation and choice of foreign special journals. The citations of journal articles are in this case analyzed. On the basis of the statistical results of citation analysis the lists of journals, arranged according to decreasing frequency of cited articles are compiled. Regularity of the big part of citation concentration into small amount of the journals enables then on the basis of these lists determine a complex of key titles with the decisive significance for the given branch and belongs to the core of the journal fund, a group of further important titles, gaining of which would be suitable and after all also journals unsuitable for the given topical field.

At evaluation of results of the citation analysis we start from the assumption that the often cited journal is really also often used and that the frequency of citation is at the same time criterium of its significance for the given fund. The reality is however much more complicated. The frequency of the citation is influenced and complicated by a number of factors, such as accessibility of particular titles, citation unequality, different kinds of selfcitations etc. The low percentage of citations belongs to applied science journals and to new titles just entering the awareness of the scientists. The latest journals don't appear in citation analyses at all. Institute for Scientific Information in Philadelphia publishes a well known *Science Citation Index* which excerpts about 3000 scientific journals for 40 countries. Its part is also *SCI Journal Citation Reports* which annually presents journals in branch order according to decreasing frequency of cited articles. Citations are presented according to relativized Impact Factor removing the differences between the scale and periodicity of particular journals. At the same time the half-time of the information aging measured by the citations is given for each title.

A documentation analysis represents another statistic method. In acquisition it is used above all for evaluating and choice of the special journals. In this case journal article notations in the given secondary source are analyzed. In this sense data from *Index Medicus* and *Excerpta Medica* are used in the scientific medical information sphere. Documentation analysis of this kind is enormously important in the scientific medical and health information system, especially because there is working a computerized system of secondary information of *Index Medicus* with which complete texts in the primary journal funds within the framework of the whole branch would be connected. According to research task, solved in the Institute for Medical Information the linkage of primary foreign periodicals with secondary foreign data-bases comparing to excerpted and in our country available journals is relatively low. 44,3 % of the list of periodicals elaborated by the *Excerpta Medica* and 49,3 % of the list elaborated by the *Index Medicus* come in the Czechoslovakia.

However this fact does not reflect exactly the accessibility of primary documents in our country with regard to:

— scientific significance of particular journals is different and the most significant ones are preferred when the choice for the branch fund is made,

— the publicated information amount in particular journals

is different and the imported titles include almost all those that bring the most of information,

— the significance of the portion of obtained journals is growing according to the real interest of Czechoslovak users so that the degree of the accessibility of primary sources to the searced relevant notations could be the best measure of the coverage of information needs. The tentative research of 167 found excerptions of the *Excerpta Medica* showed that about 85 % of primary sources are available in the Czechoslovak Socialist Republic.

The expert evaluation method uses the opinion of appropriate specialists concerning quality, information value and the significance of given document or a set of documents. The expert evaluation method is used in practice not only at evaluating and choice of particular titles but also at analysis of particular methods and criteria of this evaluation and at analysis of results of choice made by the acquirers. Sometimes an entire scientific team is used for expert appreciation, especially when planning a purchase of foreign journals from non-socialist countries. The cooperation of particular special sections of J.E. Purkyně's Czech Medical Society can be given as an example at the appreciation of the annual journal order for the working places of the branch of the scientific medical information system.

Also the expert appreciation acts only as one of the ways for the evaluation and choice of documents making the method more objective. At present time we have not yet available a reliable method of document evaluation whose results could be obligatorily and explicitly used at individual choice. The results

CRITERIA FOR THE CHOICE	PARTIAL RESULTS	FINAL RESULT
particular fields of medicine		
interdisciplinar conception	topics	
Science Citation Index /citation analysis/		
Excerpta Medica	scientific relevance	
Index Medicus /excerption analyses/		
Medical societies	recommendation of the experts	journal suitable for purchase
significant users		
acquisition commissions /expert evaluation/		
frequency of current loans	demand of users	
frequency of older loans /analysis of exploitation/		
English	language accessibility	
Russian		
German		
French		
other languages		
linkage to the present fund	continuity	
duplicity	economy	
expences		

of many citation analyses are not for the particular fund explicit, neither the profile of the analyzed secondary source does not always coincide with the particular fund profile. That is why acquirers try to realize the selection on the basis of a several kinds of analyses. For example a group of scientific periodicals having the supreme significance for the given fund is searched in the crossing of these analyses : citation, documentary, expert evaluation and the analysis of the usage of the proper journal fund. There exists a number of other criteria of the selection, important for the given institutional, resort, branch or regional fund. Within the framework of the unified control of the acquisition the following structure of criteria for the decision about the foreign periodical choice from the hard currency regions has been worked out in the branch system of medical information :

All the criteria have their own significance and are aiming from partial results to the final result of choice. The given structure of criteria will become a part of the summary acquisition programme of the branch system of medical information that will try to formulate a mutually harmonized acquisition policy of the entire groups of information institutions from the central library network to the regional sphere libraries (*i.e.* the sphere of district and regional public health centres where the libraries are acting). It should be also a basic value for the acquisition coordination of the overall biomedical literature in the Czechoslovak information system.

For the time being the real coordination of gaining and usage of medical literature concerns foreign journals from non-socialist countries only and that is because an effective title coordination can be reached in the case of periodicals. The conception of creating the biomedical periodical fund aims from the coordinated fund within the framework of a resort to the coordination among branches and consequently to the international cooperation forms in this field. The coordination of storing in resort funds is carried out in three levels. The first level is created by the central library network with an acquisition preference arising from the function of this library. In the second level there are concentrated libraries of research institutes and development basis and other organizations directly controlled by the Ministry of Health and Social Affairs of the Czech Socialist Republic and the third level consists of health bodies directing the information activity within the framework of given region. All these levels have assigned coordinating duties in mutual dependence and in the linkage to the closed coordinating agreements among branches. A central creating of summary catalogues, existing inter-library loaning and reprographical service are the necessary part of the coordinated acquisition. For the nearest future we prepare a computerized processing and usage of the summary catalogue of foreign medical periodicals as a part of a research project.

The modern elements respecting world trends in the given sphere penetrate more and more in the sophisticated controlling processes of medical libraries. We have a significant cooperation with the institutions of the COMECON countries where we are taking part, for example, in the creation and usage of the data — base about the accessibility of the periodicals from the hard currency region in appropriate libraries of the COMECON countries, the proposed cooperation with West European libraries associated in EAHIL will be significant as well.

We can state that in next years more favourable conditions for the realization of information policy in the Czechoslovak Socialist Republic will be created. It is evident from the prepared projects and the attention paid by the supreme state and party bodies to the development of all aspects of spiritual life of the society and further improving care of the population health.

30-ART-2/AVM-2-F

Les bibliothèques d'art en France et les nouvelles technologies de l'image

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Dans le domaine de l'image, la France occupe une place particulière : nous ne célébrons pas seulement cette année le bicentenaire de la Révolution mais aussi le cent-cinquantenaire de l'annonce, à Paris, de l'invention de la photographie. En 1839, l'Etat français acheta le brevet de l'invention de Niepce et de Daguerre pour en faire don à l'humanité, dont on sait qu'elle sut en faire bon usage. C'est aussi en France qu'en 1895 fut inventé le cinéma, dans un atelier de la ville de Lyon que l'on peut toujours visiter, rue du Premier Film, ainsi que l'extraordinaire maison des inventeurs, les frères Lumière, qui abrite aujourd'hui la Fondation nationale de la photographie.

Cette prédilection de la France pour l'image se retrouve aujourd'hui dans l'utilisation et la valorisation très large que beaucoup de bibliothèques françaises font de leur photothèque et dans l'activité remarquable des industries françaises du vidéodisque, des logiciels de recherche d'images et de la télétransmission des images fixes.

Le rôle de l'Etat, très important en France, a joué de deux façons, surtout à travers la politique menée depuis 1981 par le Ministère de la Culture, en privilégiant l'art photographique, d'une part parce qu'il s'adresse à un large public, et aussi parce qu'il est lié à une industrie en développement.

La création du Centre national de la photographie à Paris (Palais de Tokyo, avenue du Président Wilson) et de l'Ecole nationale de la photographie à Arles sont significatifs. Les musées et bibliothèques ont pu valoriser leurs fonds photographiques : Musée d'Orsay, Musée national d'art moderne, Bibliothèque nationale. La Ville de Paris mène aussi une action déterminée pour l'image : mise en valeur des fonds anciens du Musée Carnavalet et de la Bibliothèque historique de la Ville de Paris, organisation biennale du Mois de la Photo, galerie d'exposition du Forum des Halles et surtout ouverture de la remarquable Vidéothèque de la Ville de Paris, équipement très original et qui peut servir de modèle pour toute bibliothèque d'art qui veut s'ouvrir à la communication des films. On peut encore citer la Médiathèque de la Cité des Sciences de La Villette, ou celle de l'Institut du Monde Arabe qui, toutes deux, font une place très large et très originale à l'image fixe et animée avec des collections accessibles à tout public, stockées sur bandes ou sur vidéodisque et distribuées sur des écrans de consultation individuels.

Cette conjoncture très favorable à l'image se manifeste aujourd'hui par le nombre de vidéodisques institutionnels dont une moitié a été réalisée par des bibliothèques et l'autre par des musées à partir de leurs collections : il existe en France au moins quarante vidéodisques qui peuvent intéresser la recherche en histoire de l'art[1].

Dès 1980 le Département des estampes et de la photographie de la Bibliothèque nationale avait entrepris le microfilmage systématique de ses fonds, ce qui lui permet de disposer aujourd'hui de deux millions de reproductions photographiques sur les quinze millions de documents qui constituent ses collections. La Bibliothèque Sainte-Geneviève (Place du Panthéon) fit aussi un travail de pionnier en développant une recherche originale interactive sur un vidéodisque de ses collections d'enluminures médiévales.

Aujourd'hui la Bibliothèque nationale publie son vidéodisque de 30 000 images sur la Révolution française et la Bibliothèque publique d'information au Centre Georges Pompidou a entièrement stocké sa collection de 136 000 diapositives sur 3 vidéodisques dont l'un est entièrement consacré aux Beaux-Arts. D'autres institutions liées aux bibliothèques d'art, comme le Musée des arts et traditions populaires, le Musée de la mode et du costume ont reporté une partie de leurs collections d'image sur vidéodisque.

La Direction des bibliothèques universitaires (D.B.M.I.S.T.), a encouragé ce mouvement en réalisant des vidéodisques d'archéologie et celui des "velums" de la Bibliothèque du Museum d'histoire naturelle. La Direction du Livre et de la lecture, responsable des bibliothèques de lecture publique a aussi financé le microfilmage des fonds iconographiques de plusieurs grandes bibliothèques comme Reims, Rouen ou Bordeaux. Aujourd'hui la décentralisation a transféré aux collectivités locales les pouvoirs de l'Etat et il est remarquable que plusieurs régions poursuivent la même politique : des vidéodisques "collectifs" des musées et bibliothèques sont déjà réalisés en régions Rhône-Alpes, Alsace et Franche-Comté, ou dans des villes comme Nîmes où les médiathèques sont reconstruites et modernisées.

La réalisation de logiciels de recherche adaptés aux banques

d'images est également en plein développement : il en existe un grand nombre en France, ce qui rend le choix des bibliothécaires souvent difficile[2]. Les sociétés de microinformatique font preuve d'inventivité. La Bibliothèque Sainte-Geneviève avait expérimenté un outil qui allait devenir "l'imageur documentaire", logiciel qui permet au chercheur de travailler sur son écran comme s'il avait sous la main 50 000 diapositives, qu'il peut classer, comparer, empiler, stocker ou éliminer avec une grande facilité : il existe aujourd'hui cinq modèles d'imageurs sur le marché français !

Dans le même esprit, l'exposition "Mémoires du futur" présentée en 1987 par la Bibliothèque publique d'information, réalisait en grandeur nature une "salle de consultation" des images dans les bibliothèques de l'avenir : sur un même poste de travail, le "lecteur" avait accès à différentes collections, certaines sur vidéodisque, d'autres sur bandes vidéo et pouvait les appeler, les comparer, les annoter grâce à un générateur de caractère, les modifier grâce à une palette graphique, les enregistrer et les stocker sur un banc de montage et même y insérer de nouvelles images prises dans des livres grâce à un banc-titre. L'ensemble de cet appareillage, baptisé "séquenceur d'images", réunissait sur un simple bureau qu'on pourrait installer dans n'importe quelle bibliothèque spécialisée toutes les commodités dont un chercheur peut aujourd'hui bénéficier et préfigurait le poste de travail de nos futures bibliothèques d'art où chercheurs et étudiants pourront appeler les banques d'images de tous les musées et faire un travail en ligne original sur des images comme celui que l'on fait aujourd'hui sur des textes à partir des terminaux sur lesquels sont communiquées les bases de données que l'on peut travailler soi-même avec un traitement de texte.

Pour mesurer les avantages que les historiens de l'art tireront de ces nouveaux outils, il faut imaginer leur utilisation dans le cadre des progrès de la télécommunication des images. Il ne sera pas nécessaire que les bibliothèques acquièrent tous ces vidéodisques puisqu'elles pourront les interroger en ligne et les télédécharger en local pour travailler sur les séquences qui les intéressent. La grande idée du "Musée imaginaire" qu'André Malraux a développée à partir de la nouvelle dimension qu'offrait pour lui la reproduction photographique des œuvres d'art recevra alors sa signification totale car il sera véritablement possible d'entrer en connexion avec tous les musées du monde qui auront stocké sur disque numérique ou sur vidéodisque leur documentation photographique. On sait aujourd'hui le calvaire des photothécaires qui gèrent des "diathèques" de centaines de milliers de diapositives dont on connaît les difficultés de classement, de manipulation et surtout de conservation. On peut espérer que la mise sur serveur des banques d'images considérables, comme cela commence à se faire en France, rendra obsolète la gestion infernale des collections de diapositives. La Bibliothèque publique d'information travaille activement dans ce sens pour permettre l'accès à distance de ses trois vidéodisques encyclopédiques[3].

Le nouveau réseau de télécommunication numérique appelé en France "Numéris" couvrira l'ensemble du territoire dans deux ans et progressivement l'Europe entière. On peut y transmettre des images fixes en couleurs d'une qualité excellente si l'on est équipé d'un écran à haute définition. Ces équipements sont encore coûteux et peu accessibles aux particuliers. En revanche ils peuvent dès aujourd'hui équiper les bibliothèques et particulièrement les bibliothèques d'art qui pourront ainsi recevoir ou communiquer entre elles et même travailler à distance sur des ensembles d'images sélectionnées par les chercheurs eux-mêmes au milieu de collections illimitées.

Il n'est donc pas étonnant que la France ait conçu plusieurs projets pour mettre à exécution ces nombreuses possibilités. L'idée d'une grande "bibliothèque de l'image" qui, à partir de tels équipements permettrait l'accès à des collections d'œuvres d'art d'origines multiples, et stockées sur différents supports est sur le point de se réaliser. Déjà le Palais de Tokyo qui abrite à la fois le Centre national de la photographie, des salles d'expositions de la Mission photographique de la Direction du patrimoine (photographies anciennes conservées hors de Paris au fort de Saint-Cyr), et la F.E.M.I.S., école des cinéastes français, doit accueillir les fonds de la Cinémathèque française et envisage d'installer une bibliothèque pourvue de postes de travail spéciaux pour l'accès aux "banques d'images".

C'est pourquoi dans le nouveau "grand projet" de la Bibliothèque de France qui devra renouveler et moderniser dans un nouveau bâtiment la partie contemporaine de la Bibliothèque nationale, il était inévitable de programmer un vaste secteur audiovisuel qui réunirait des collections et des équipements qui pour la plupart existent d'ores et déjà en France mais de façon expérimentale et dispersée. Au stade actuel, le projet de Département audiovisuel prévu dans la Bibliothèque de France ne peut guère que faire l'inventaire des possibilités : banques d'images sur vidéodisques, vidéothèque automatisée, imageurs documentaires, séquenceurs d'images, télétransmission des collections etc. et les réunir en un lieu modèle.

Il faut convenir que le problème à résoudre pour réussir un tel équipement n'est pas tant d'ordre technique ni même financier que juridique, puisqu'il est aujourd'hui, faute d'une législation et d'organismes régulateurs appropriés pour gérer les droits attachés aux images, qu'elles soient fixes ou animées, pratiquement impossible de faire fonctionner de tels outils dans le respect du droit d'auteur. Dans ce dédale juridique, le problème des reproductions d'œuvres d'art est le plus difficile à résoudre puisqu'il inclut non seulement le droit du photographe ou de l'éditeur, ceux de l'artiste dont l'œuvre est reproduite, lorsqu'elle n'est pas dans le domaine public, et, dans tous les cas, celui du propriétaire de l'objet d'art ou du monument photographié.

S'il convient d'être modeste dans nos rêves d'avenir c'est donc plus pour des raisons de société qu'en raison des perspectives ouvertes par la technique. Les raisons juridiques ne seront pas seules à ralentir un mouvement que la technique voudrait accélérer. Sommes-nous vraiment prêts à utiliser de telles possibilités ? D'une part l'histoire de l'art, qui devrait être un des secteurs les plus immédiatement concernés par ces progrès, n'est certainement pas celui où ils sont le plus attendus. Le marché qu'offre ce secteur n'est pas le plus solvable. Les méthodes qu'on y applique ne sont pas les plus dynamiques : les historiens ont-ils envie de travailler ensemble à distance, comme peuvent en avoir envie les hommes d'affaires, les médecins ou les architectes ? Sont-ils vraiment désireux d'utiliser le fait que ces nouveaux outils de travail de l'image ne sont pas des outils de consultation passifs mais aussi des outils d'écriture qui permettent de modifier l'image, de l'enregistrer, de la retransmettre, d'en changer le contexte etc. ? Le bibliothécaire aura un rôle central à jouer dans ce travail de formation continue que nécessite la maîtrise de ces nouveaux outils. Il sera, dans une première période du moins, le spécialiste indispensable de cette transformation qui repose donc en grande partie sur sa compétence et aussi sur son enthousiasme.

Notes

1 *Paysage du vidéodisque banque d'images en France*, La Documentation française, 1988, 416 p.

2 Sinno (Sandra) et Degez-Vataire (Danièle), *Les logiciels documentaires de pilotage de vidéodisques*, Bibliothèque publique d'information, D.B.M.I.S.T. et La Documentation française, 1987.

3 Voir la communication à ce même congrès de Luce-Marie Albigès, chef du service "iconographique" de la B.P.I. (Centre G. Pompidou), Paris.

On consultera aussi les deux "Dossiers techniques" publiés spécialement à l'usage des bibliothèques par la Bibliothèque publique d'information (Centre Georges Pompidou) : N° 3 : *Le Traitement documentaire de l'image fixe*. N° 4 : *Le Vidéodisque, mémoire d'images*.

On trouvera une bibliographie complète sur les problèmes du vidéodisque appliqué aux bibliothèques dans : *Image et vidéodisque*, sous la direction de Serge Cacaly, La Documentation française, 1988, 200 p.

29-ART-1/AVM-1-F

Les collections photographiques au Japon : accessibilité et nouvelles technologies

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RESUME

Les collections photographiques au Japon connaissent un développement récent. La création de musées de la photographie en est une preuve. Cependant l'accès aux collections reste difficile surtout quant aux reproductions photographiques des

objets d'art. Il faut avoir conscience de la nécessité d'établir des conditions fondamentales permettant d'assurer l'accessibilité aux documents. L'application de nouvelles technologies telles que le vidéodisque, le disque optique numérique et le CD-ROM est en train de changer les modalités du stockage et de la recherche des images. Désormais les collections d'épreuves originales seront plus appréciées, dans le même temps, les photothèques électroniques assureront une accessibilité plus avancée aux images photographiques. Telle est une des tâches les plus urgentes pour notre nouvelle organisation "Japan Art Documentation Society".

Aujourd'hui je voudrais vous présenter un aperçu des collections photographiques au Japon.

D'abord je parlerai de l'évolution récente des collections, puis je traiterai deux grands problèmes qu'elle pose, c'est-à-dire, la difficulté existante à y accéder et l'impact des nouvelles technologies appliquées. Enfin, je proposerai la nécessité de l'engagement des documentalistes pour l'enrichissement des collections et leur utilisation.

On doit rendre compte de la photographie dans de multiples dimensions : documentaire, scientifique, esthétique, etc. Cela se traduit plus clairement par cette phrase de Susan SONTAG, critique américaine : "To collect photographs is to collect the world". Mais nous nous limitons à discuter ici les problèmes posés dans le domaine de la science humaine.

Et nous essayons de mettre au point l'interface entre la photographie et les nouvelles technologies. Nous sommes heureux de pouvoir illustrer quelques phases paradoxales de la culture moderne au Royaume des "appareils photos".

1. EVOLUTION RECENTE DES COLLECTIONS PHOTOGRAPHIQUES AU JAPON

Bien que la pratique de la photographie soit très répandue au Japon, les collections photographiques ne sont pas encore devenues une habitude.

Les épreuves photographiques originales attirant les amateurs d'art sont un phénomène assez récent. Au niveau de l'institution, en ce qui concerne l'exposition et la conservation nous nous sommes passés de musée ou de département spécialisé pendant longtemps. Mais la campagne pour la création d'un musée national de la photographie a commencé en 1978. Cette campagne a provoqué aussi des réactions dans le secteur public local et même privé. Ainsi, nous avons eu le premier musée, Musée de photographie DOMON Ken de statut semi-public inauguré en 1983.

Depuis lors on témoigne de la naissance successive de musées consacrés aux photographes japonais comme MAEDA Shinzo, SHIRAHATA Shiro.

Dans le secteur public, les départements de photographie des Musées municipaux de Kawasaki et de Yokohama se sont ouverts au public en 1988 et 1989. Puis la Ville de Tokyo va se doter d'un Musée de la photographie en 1993. Il est prévu d'en ouvrir les portes des locaux provisoires en 1990. Enfin, répondant à la campagne, le Musée national d'art moderne de Tokyo a décidé de créer un département de photographie dans son annexe qui sera réaménagée vers 1993.

Mais les photographies documentaires anciennes ont été dispersées sauf celles conservées dans les bibliothèques ou musées peu nombreux, entourés d'un environnement politique et socio-culturel spécial propice à l'exploitation d'une technologie nouvelle de la photographie.

L'existence de bonnes collections à Hokkaido telle qu'à la Bibliothèque municipale de Hakodaté et à l'Université de Hokkaido, s'est faite grâce aux photographes étrangers et japonais qui ont été amenés par la Mission au défrichement de Hokkaido au début de l'ère Meiji.

Le Musée national de Tokyo garde des photographies d'objets d'art prises juste au début de Meiji. C'est le résultat du mouvement de rejet du Bouddhisme mené par le gouvernement, qui a laissé en récompense des photographies de l'art bouddhique.

Ici je vous montrerai une vue générale des collections photographiques selon ces catégories :

1) Photographie artistique

Depuis ces dix dernières années, des musées des beaux-arts ont commencé à collectionner des photographies et/ou à organiser des expositions photographiques. On peut noter le Musée national d'art moderne de Kyoto pour sa collection provenant principalement d'Arnold GILBERT de Chicago, celui-ci compte environ mille pièces représentant l'histoire de la photographie occidentale du daguerréotype aux nouvelles vagues passant par Ansel ADAMS, Henri CARTIER-BRESSON, Eugene SMITH, etc.

Le Musée municipal de Kawasaki a une riche collection de HAMAYA Hiroshi et on doit ne pas oublier les musées préfectoral de Hyogo et municipal de Fukuoka.

2) Photographie documentaire

A part quelques bibliothèques dans la région de Hokkaido et d'autres, les bibliothèques japonaises en général n'ont pas de bonnes collections. C'est à cause de l'ignorance de la valeur documentaire des fonds iconographiques.

C'est pourquoi la photographie ne fait pas l'objet de dépôt légal, et la Bibliothèque nationale de la Diète n'a pas de département de photographie ni de bonnes collections, même si elle conserve des albums-photos publiés.

3) Photographie de publicité

De grandes agences interdisciplinaires comme Orion Press ou Pacific Press Service à Ars Planning, petite collection de Ukiyoé, il existe environ deux cent agences photographiques au Japon. La plupart de ces agences sont recensées dans le répertoire *Stock photo guide*, publié chaque année en tant que supplément à la revue mensuelle professionnelle *Commercial photo*.

4) Photographie de presse

Le quotidien Mainichi permet d'accéder à sa collection de photographies de presse, qui a continué à s'agrandir pour devenir une des collections les plus riches au Japon sans avoir souffert du grand tremblement de terre de 1923 et des bombardements de la guerre.

2. ACCESSIBILITÉ AUX REPRODUCTIONS PHOTOGRAPHIQUES DES OBJETS D'ART

L'immaturité des collections photographiques suscite nécessairement l'inadaptabilité à y accéder. Ici nous discutons les problèmes concernant l'accès aux reproductions photographiques des objets d'art.

Comme André MALRAUX l'a dit dans *Le Musée imaginaire*, "L'histoire de l'art depuis cent ans, dès qu'elle échappe aux spécialistes, est l'histoire de ce qui est photographiable". Les reproductions photographiques des objets d'art sont indispensables à l'étude de l'art.

Mais il est assez difficile d'y accéder au Japon. C'est plus clairement souligné par les historiens étrangers de l'art japonais, entre autres par Madame Ellen CONNAENT, un des intervenants au Symposium international sur l'art moderne japonais et l'Occident organisé à Tokyo en 1988.

On peut noter quelques raisons :

Les bibliothèques ou photothèques des musées ne sont pas bien développées à l'exception du Centre de recherche et d'information du Musée national de Tokyo. Ici on peut manipuler le fichier, puis consulter en libre accès les reproductions photographiques. La mise en service du Centre en 1984 a marqué une étape sans précédent en son genre mais les reproductions des objets collectionnées ailleurs sont peu nombreuses.

Les Centres des musées nationaux de Kyoto et de Nara seront les successeurs.

Quand aux collections privées des objets d'art, les collectionneurs ne tendent pas à se présenter ni à laisser accéder à leurs collections encore moins à laisser photographier leurs œuvres. C'est, d'une part, à cause du manque de notion de patrimoine et, d'autre part, à cause de la crainte d'une menace sur la propriété des œuvres d'art. Cela veut dire un manque de convention de droit d'auteurs.

Enfin, les chercheurs mêmes sont privés de la conscience d'une nécessité d'établir des conditions fondamentales telles qu'une égale facilité d'accès aux documents, livres ou collections photographiques, pour leurs propres recherches.

3. APPLICATION DES NOUVELLES TECHNOLOGIES

Un nouveau stade pour une documentation très ouverte a été préparé par le développement de nouvelles technologies, surtout celles de stockage des images. L'application du vidéodisque, disque optique numérique ou CD-ROM a accéléré l'intérêt à la visualisation rapide et interactive.

Nous montrerons quelques réalisations.

JPRC (Japan Photo Research Center), nouvelle compagnie,

collectif de dix agences photographiques de spécialité différente, est entrée en service en 1988, et six mois plus tard elle a déjà eu un réseau national de quarante points de services équipés d'un système autonome composé d'un micro-ordinateur, d'un vidéodisque de cinquante mille images et de son lecteur, d'un écran TRC et d'une imprimante en couleur. Sa stratégie de recherche est assez sophistiquée pour permettre de trouver des photographies à partir de mots qui indiquent une sensation, un angle de prise de vue, un mouvement des objets, etc.

Un autre système progiciel utilisant le disque optique magnétique vient de paraître pour sa commercialisation dans ce domaine.

En ce qui concerne le disque optique numérique, la Société Mainichi-shimbun mentionnée plus haut a déjà saisi quarante mille photographies permettant une recherche à partir de mots-clés libres.

Le Musée national de l'ethnologie est connu pour sa base de données visuelles des artefacts. C'est un des systèmes les plus sophistiqués au monde qui utilise, d'une part, le disque magnétique pour le stockage des données compressées de résolution 256x256 et, d'autre part, le disque optique numérique pour les images de haute définition de 1024x1024. L'application de l'écran mosaïque et du système des fenêtres multiples est très appréciée.

Une version pour les collections photographiques vient d'être mise en service. Ce nouveau système permet un archivage plus rapide des images et la technique de TVHD (Télévision à haute définition dont l'appellation japonaise est "Hi-vision") est réalisée.

Le Musée préfectoral de Gifu vient aussi de mettre en service un système de visualisation "Hi-vision" de sa collection d'œuvres d'art.

La première réalisation de CD-ROM dans ce domaine a été faite auprès des collections du Musée municipal d'art moderne de Saku par Bijutsu-nenkan-sha, Tokyo.

Beaucoup d'autres musées ont l'intention d'introduire le système "Hi-vision" et il paraît que même des photographes utilisent l'écran "Hi-vision" pour leurs expositions. Je cite par exemple celle de SHINOYAMA Kishin sur le thème de l'architecture réalisée avec la collaboration de l'architecte ISOZAKI Arata.

Les matériaux de système "Hi-vision" sont encore très coûteux et ceux du CD-ROM ne sont pas encore compatibilisés parmi les différentes marques. Alors il faudra attendre un peu pour leur popularisation. Mais dans un futur proche, on va voir une généralisation de l'iconothèque automatisée.

4. INTERFACE ENTRE LA PHOTOGRAPHIE ET LES NOUVELLES TECHNOLOGIES

La photographie a toujours évolué avec le développement de la technologie. On pourrait donc dire que l'histoire de la photographie est l'histoire de "voir" grâce à la technologie.

Nous avons vu tout à l'heure l'utilisation des nouvelles technologies pour le stockage et la recherche des images qui sont d'abord fixées sur les pellicules. Cela signifie plus clairement l'électronisation des photographies traditionnelles.

Dans cette direction, on peut noter l'application des technologies du traitement d'images pour restaurer la dégradation des photographies, par exemple, au Musée DOMON Ken.

Et la chose la plus importante, c'est l'apparition des appareils photos électroniques équipés de disquette qui remplace la pellicule. L'état de la collection photographique changera dans le futur. On pourrait dire que la transition de l'âge de l'image fixe matérielle à celui de l'image immatérielle vient de commencer.

Je crois que le futur de la photographie suivra deux routes distinctes. Une route amplifiera la valeur artistique de la photographie matérielle. La collection des épreuves originales sera plus appréciée. L'autre route conduira à un monde de l'iconothèque ou photothèque électronique. En plus du traitement d'images et du processus de stockage, la recherche et la visualisation des images numériques seront effectuées plus efficacement. Et cela assurera une accessibilité plus avancée aux images photographiques.

Dans les musées nationaux, d'une part, on se met à photographier des objets d'art en 8x10 pouces qui réaliseraient la photographie matérielle de meilleure qualité que le "Hi-vision", et d'autre part, on est en train de construire des banques de données photographiques.

CONCLUSION

En conclusion, je voudrais noter qu'on a commencé à reconnaître les valeurs artistiques ou documentaires des photographies en tant que patrimoine culturel au Japon. Et l'application des nouvelles technologies va promouvoir cette tendance. Surtout pour l'étude de l'histoire de l'art, il est nécessaire de collectionner des photographies d'œuvres.

J'ajoute finalement que nous avons créé au mois d'avril 1989 une société, qui s'appelle "Japan Art Documentation Society" unifiant les bibliothécaires d'art, conservateurs de musée, photothécaires, historiens d'art, informaticiens et journalistes, soit cinq ans après la première conférence européenne de la Section des bibliothèques d'art de l'IFLA organisée à Genève en 1985 où j'avais proposé de la créer.

Ce dont nous avons parlé aujourd'hui nous paraît une des tâches les plus urgentes à laquelle se consacrer.

Nous exprimons nos profonds remerciements à Madame Margaret SHAW qui nous encourage toujours en tant que présidente de la Section et à Madame Huguette ROUIT qui reste toujours mon amie sincère.

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Bibliothèque, droit et communication : enjeux

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Sommaire d'orientation

Bibliothèque et droit ont plus d'un trait commun : ils remplissent une fonction primaire commune et rencontrent ensemble une "crise".

Cette fonction commune est celle de la conservation. Les bibliothèques conservent les signes culturels, littéraires ou artistiques. Le droit veille au maintien des signes organisationnels de l'ordre social. Mais ils ont également en commun d'être confrontés au phénomène des nouvelles techniques de communication dont les impacts provoquent, sur l'une et l'autre, de fortes turbulences, tant sur les modes d'exercice de leurs fonctions traditionnelles que très probablement sur ces fonctions elles-mêmes...

L'introduction et le développement des nouvelles techniques de communication dans les bibliothèques ne peut manquer par répercussion d'interpeller les cadres juridiques dans lesquels se déroulaient jusqu'à présent leurs activités, ici principalement au regard du droit des auteurs et des éditeurs.

La confrontation entre bibliothèques et nouvelles techniques de communication présente en effet une dimension juridique : révélatrice et génératrice. Cette dimension juridique est révélatrice en ce qu'elle fournit un outil d'observation de l'évolution des activités bibliothécales. Génératrice, en ce que la règle de droit, reflet du point d'équilibre d'une situation, pourrait constituer un frein, voire susciter des blocages ou une mise en cause de ces évolutions.

L'analyse doit se placer au plan mondial. C'est le cadre de ce congrès. C'est aussi celui du débat. Pas plus que la communication, il ne peut pas être en effet enfermé dans des limites territoriales, des barrières frontalières. Il est donc, tout comme elle, nécessairement mondial, sans que l'on ne puisse, et ne doive, pour autant assimiler et confondre des situations, nationales ou continentales, de natures variées.

Les nouvelles techniques de communication (NTC) exercent-elles un effet perturbateur sur l'équilibre qui caractérisait des siècles de l'histoire bibliothécaire ? Il s'agira en effet d'examiner si cet équilibre "classique", subtil composé de pratiques sociales et de normes juridiques, se trouve menacé par le développement des techniques de communication, par ces outils qui apparaissent offrir tant de perspectives de développement et peut-être même de renouvellement de la bibliothèque ? Cette mise en cause atteint-elle le point de requérir la recherche d'un nouvel équilibre et, dans l'affirmative, peut-on en esquisser quelques fondements à défaut de pouvoir déjà les observer ? S'agissant d'un équilibre dont le caractère culturel traditionnel se révèle aujourd'hui profondément renouvelé par ses dimensions économiques et internationales, voire stratégiques, on

conçoit la nécessaire modestie du propos, à la mesure de l'ampleur des enjeux.

L'orientation de l'analyse est guidée par l'idée principale que le point de changement d'équilibre survient non pas par l'introduction même des nouvelles techniques, mais par la nature des usages auxquels elles sont affectées, au regard des fonctions traditionnelles des bibliothèques.

Les cadres juridiques classiques paraissent pouvoir accueillir sans trop de résistance l'évolution des outils techniques et conceptuels liés aux technologies modernes de communication dès lors que leurs usages s'inscrivent dans l'accomplissement des actes traditionnels de la bibliothèque. Cela ne signifie pas qu'elle ne soit pas confrontée à certaines résistances. Mais il s'agit dans ce type de situation de procéder à de simples adaptations pour tenir compte du changement d'outil. Il n'y a pas de rupture de logique.

Tel n'est plus le cas lorsque l'outil technique, alors accompagné le plus souvent d'une intelligence, quelle que soit cette valeur ajoutée, transforme une fonction traditionnelle au point de la renouveler ou, a fortiori, d'en créer une nouvelle. Dans ces cas, le droit peut constituer une barrière et limiter, voire interdire, cette activité.

Les NTC soumettraient-elles les bibliothèques à une sorte de "supplice de Tantale". Ne pas y recourir serait sensiblement se condamner. Les mobiliser renforcerait l'accomplissement des missions traditionnelles et offrirait, parfois impliquerait par rationnalité ou nécessité économique, la possibilité de développer des activités nouvelles, mais une telle tentation devrait être repoussée — pour cause de droit !

Le problème se pose principalement pour la fonction traditionnelle de diffusion. Les conditions de l'accès du public se sont modifiées et seront encore bouleversées. A la consultation sur place se substituera, en partie, la consultation à distance. Le prêt n'est qu'une étape intermédiaire, car il implique encore un déplacement physique dans l'espace bibliothécaire, même si la consultation se déroule à l'extérieur. Tel n'est plus le cas avec les outils de communication à distance, de télé-consultation du son, des images et autres formes de messages.

La télé-activité constitue-t-elle un nouveau moyen d'accomplir une fonction traditionnelle ou une nouvelle fonction des bibliothèques ? En est-il encore de même lorsque le télé-consultant peut procéder à un enregistrement à domicile, par quelque procédé que ce soit, analogique ou numérique ? La question est-elle fondamentalement différente en ce qui concerne la photocopie, qu'elle soit commandée sur place ou à distance, transmise sur support ou en ligne ?

Si les droits nationaux opèrent généralement des distinctions selon le mode d'exploitation, une telle distinction se justifie-t-elle du point de l'accomplissement des missions des bibliothèques publiques ? La finalité ne demeure-t-elle pas pourtant la même, quel que soit le vecteur, ne devrait-elle pas en conséquence constituer le critère de légalité, comme dans certains pays ? Le rapprochement entre ces deux conceptions ne s'est pas réalisé en droit, dans le cadre de l'équilibre classique. Il s'est opéré par une pratique de tolérance, dans les pays de droit restrictif soit en raison du poids de la pesanteur culturelle dans les mentalités des titulaires de droits, soit du fait de l'absence d'enjeu économique réel pour eux.

Mais les pratiques de tolérance acceptées dans "l'équilibre classique" risquent fort d'être abandonnées, il pourrait en être de même dans les pays où ces pratiques reposaient sur une base légale. En effet dans le cadre d'une économie de l'information dont l'équilibre est souvent fondé sur la recette à la marge, toute exploitation non rémunérée est cause de déstabilisation. Les bibliothèques n'ont-elles pas, les premières, dû parfois s'engager dans une politique de services payants après avoir investi dans des nouvelles techniques ? Ce faisant elles franchissaient un pas supplémentaire d'intégration dans le circuit économique. De tels services sont en effet susceptibles de se positionner sur le marché de l'information, et donc de concurrencer les services du secteur privé, parfois même les propres services des producteurs d'information.

Une telle situation apparaît difficilement pouvoir se développer sans appeler une clarification des rôles et la recherche d'un nouvel équilibre. Les exigences de ce que l'on peut aujourd'hui appeler une industrie de l'information les rendent nécessaires. Son caractère stratégique, tant d'un point de vue économique que culturel en font une ardente obligation, pour tous les Etats. Des distorsions de droit peuvent en effet créer des déséquilibres entre pays et accroître ceux déjà existants.

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THE LIBRARIES OF THE FRENCH CENTRAL GOVERNMENT DEPARTMENTS AND THE ADMINISTRATIVE LIBRARY OF THE CITY OF PARIS

Pierre CASSELLE
Bibliothèque administrative de la Ville
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Pierre CASSELLE

THE LIBRARIES OF THE FRENCH CENTRAL GOVERNMENT DEPARTMENTS AND THE ADMINISTRATIVE LIBRARY OF THE CITY OF PARIS

It is relatively difficult to present a picture of the libraries attached to the French ministries and main government departments, because these collections, often dating back into the distant past, were only in rare cases independent entities distinguishable from the departments of the administration for which they provide essential documentation and information.

The government departments very early felt the need for libraries containing works that would be of assistance to them in their work. This was the case, for example with the Ministries of War and Foreign Affairs under the Ancien Régime. It was in the 19th century in particular that this type of library began to emerge in France in response to the expanding sphere of activity of public authority and the increasing complexity of affairs to be dealt with. So it was that in 1800 the Conseil d'Etat (Council of State) library was created and put under the charge of Barbier, the famous author of the Dictionnaire des oubrages anonymes.

The development of French administrative libraries, however, dates from the reign of Louis-Philippe (1830-1848), during which the librarian of the Ministry of the Interior wrote effusively "Knowledge of all administrative laws and of their various interpretations is indispensable (...) for all government officials. Practice on its own is not sufficient; it should be possible to turn to theory and comments for support(...). The

usefulness of administrative libraries is not a matter for debate; there is no need to prove it since everyone acknowledges it, none more willingly than government officials, administrators, intelligent and industrious employees" (1).

In the middle of the 19th century most ministries possessed large administrative libraries which listed their collections in catalogues intended for distribution. The administrative libraries flourished in the second half of the 19th century up until the First World War, although few of them benefited from a statute ensuring their autonomy within their particular government department. Often they only existed as collections of books, which were sometimes split up between the different departments of a ministry. The administrative link between the libraries within their ministries frequently varied from case to case; very often they were associated with the archives service. However, the tendency was to allocate them to a central department (General Secretariat or Cabinet), under the authority of an administrative official who was in charge of the library along with other responsibilities more important for his career. Another indication that the libraries were not considered as separate entities within their government department was the fact separate appropriations were not set aside for them in ministerial budgets.

The situation of administrative libraries did not improve between the wars. Lacking in funds and qualified staff, they became stultified, no longer providing government departments with the services expected of them. The size of their collections was sometimes even considered a handicap. Therefore, soon after the Second World War, many government departments broke away from the libraries in favour of purely documentation centres.

*

What is the situation today? (2)
The major state entities, such as the Council of State,

the Cour des Comptes (Court of Auditors) and the Cour de cassation (Supreme court of appeal) posses large, old administrative libraries, all three built up again after a fire in 1871 during the Paris Commune, as do some main ministries created at the time of the Revolution which have maintained a stable structure: Ministry of Justice, Ministry of Finance, Ministry of Foreign Affairs, Ministry of Defence. The Ministry of Posts, created in the last 30 odd years of the 19th century, has a library dating back to 1878. On the other hand some ministries, although old, such as the Ministry of the Interior, the Ministry of Agriculture or the Ministry of Industry reorganised their central libraries after the Second World War. This was the time when library of the present Ministry of Equipment and Housing and, of course, the library of the French Documentation department under the Prime Minister's control were created. The French ministerial structure not being of a permanent nature, some libraries were subjected to the changes affecting their particular government departments, as for instance the library currently shared by the Ministries of Health and Labour which incorporates the collections of two previously separate administrative libraries (3).

These libraries (which are almost always attached to the general administration departments of their respective ministries) are in effect fairly diverse. Some, in the tradition of the 19th century, provide an encyclopaedic range of information such as those belonging to the Council of State, the Ministry of the Interior or the Ministry of Finance, whereas others are more specialised, as for example the libraries attached to the Court of Auditors, the Supreme court of Appeal, the Ministries of Labour and Health, Justice, Posts and Industry. Some are more documentation centres than actual libraries; this applies to the Ministries of Agriculture, Education, Equipment and Housing, Trade, Transport, etc., as opposed to others which exist for document preservation and research purposes and are attached to the archives service of their respective ministries, as for instance the Ministry of Foreign Affairs or the Ministry of Defence.

When a government department owns a library geared to providing

supplemented by specialised records departments, as in the case of the Council of State, the Court of Auditors, or the Ministry of Defence.

The status of the staff running administrative libraries reflects such diversity. Whereas some government departments place the management of their libraries in the hands of professionals, others still place them under the direct authority of an administrative official, a situation already denounced in the 19th century!

There are certain characteristics, however, which are common to all administrative libraries.

Access, reserved for members of the government departments to which the libraries are attached, is not permitted to members of the public without authorisation and only for research purposes (with the exception, of course, of the French Documentation library, the main function of which is to provide a public information service). Works are only available for consultation in the library itself, although they may be lent out to staff of the particular government departments. The majority of these establishments do, however, arrange interlibrary loans, though sometimes only within the administrative library network. All the libraries provide a telephone answering service for staff in their department, carry out document searches for individuals, and regularly publicise their material and facilities in a new acquisitions bulletin.

On the whole, then, it can be seen that dissimilar and totally independent establishments are run in a similar fashion. As opposed to municipal or university libraries, administrative libraries are not jointly supervised by a single authority and are not part of an organised network. The purely professional links (even personal ones in the case of staff) existing between the administrative libraries are no closer than with other types of libraries which, however, devote their energies to related fields and can therefore complement the services provided for readers who use them.

By way of a rather untypical example I shall now describe the administrative library attached to the town hall of Paris where I work.

The administrative library situated on the 5th floor of the Hotel de Ville in sumptuous accommodation, which has no doubt dissuaded the authorities from dismembering it (4), replaced the city public library which was burnt down in the fire of 1871. However, from the very outset it was there to serve the administration in Paris, then run by a state servant, the prefect of the Seine. The prefectures of the other French departments also had administrative libraries available to them, but because of the importance of the tasks facing the prefecture of the Seine, its library rapidly reached the stage where it could be compared with those of the larger government departments.

The initial collection of books belonging to the administrative library of the City of Paris had an almost encyclopaedic range, and this betrays the library's concern to cover all areas of interest to the municipal authorities, including the purchase of old works. In addition, thanks to the exchanges set up between the City of Paris and other states and large cities abroad, the general collection doubled in size from the end of the 19th century with the addition of foreign acquisitions which enlarged the specialised fields of the library: administrative, demographic and statistical history (5).

The Hotel de Ville library, which was run by an exceptional local government department in every respect, was regarded as exemplary at the end of the 19th century, giving rise to the following comment in the Répertoire du droit administratif: "Although the inspiration behind the creation of the central library of the Ministry (of the Interior) was commendable, it can be seen that the results fell far short of the intended goal (...). There is another administrative library in existence in Paris, based on

the same design but better organised, more comprehensive and required to provide the same service, not only to government officials, but also to the public; this is the library attached to the prefecture of the Seine." (6).

The library collection, though initially extensive, has continuously increased in size for more than a century, keeping pace with the needs of the Paris administration, resulting in a vast collection of volumes (some 450 000) covering the human sciences, particularly well endowed in the fields of law, politics, economy, social sciences, history, but also including basic works enabling general questions on art, literature or geography, for instance, to be dealt with rapidly.

The administrative library, for a long time attached to central government (General Secretariat or Cabinet), is now the responsibility of the libraries office in the Cultural Affairs department of the Paris Mairie, as are the municipal public libraries, the record lending libraries, the Bibliothèque historique and the Bibliothèque Forney. The administrative library therefore has to provide a central documentation service for all the Mairie's departments, the General Secretariat, the mayor's office and often the town council from within one of the specialised departments. This situation sometimes leads others to misunderstand the criteria for assessing our research and documentation activities when they are compared with the lending statistics for the public reading libraries, or even the straightforward loan of works by other specialised municipal libraries.

The administrative library of the Hotel de Ville has two roles - often complementary, sometimes conflicting - : that of documentation centre for the Paris Mairie, and that of specialised study and research library open to the public. These two main functions are supplemented by a "surrogate" role, that of supplying government

officials with official documents dealing with municipal or national matters(7).

In its capacity as central documentaion service for the Mairie, the administrative library carries out itself research work requested by telephone, letter or messenger, supplying books, photocopies of texts, and often dossiers as well or even abstracts. In order to fulfil this function the library has at its disposal author and subject catalogues, card indexes, updated by scanning periodicals covering Paris administration and national regulations and administrative, economic, social, political and biographical documentation.

When required for a particular piece of research, we supplement our documentation obtained manually by interrogating fifteen or so legal databanks, offerd by Teleconsulte and Juridical. These banks embrace either a selection of documents or an exhaustive collection covering legislative texts and national regulations, decisions of national courts legal studies drawn up by experts, incorporated as references, summaries or in full.

Access to these databanks is not available to our readers; they are used internally for research work that we carry out ourselves for government departments, our documentation service deciding on whether it is worthwhile to use traditional or automated methods to deal with the requests. In any case, these databanks supply harly any texts dating earlier than 1960.

Because of the extreme diversity of matters handled by the various departments in the Mairie we cannot claim to supply relevant documentation in all fields, especially in the case of the technical departments (Building and Housing, Highways,

Architecture, etc.), which have specialised documentation centres at their disposal (8). As a general rule we buy works likely to be of interest to more than one department in the Mairie, which excludes purely technical documents.

The library is not content with waiting for queries from its users, but tries to anticipate their needs, even prompt them. This is why we send a bulletin summarising our main periodicals in the administration field, together with an order form for photocopies of these articles, to 310 Mairie departments each week. This bulletin not only ensures greater use of our periodicls and thereby makes our subscriptions worthwhile, but also plays a very effective part in publicising the library within our department, the services of which are scattered all over Paris. The library therefore becomes a concrete object every week, even for those officials who have perhaps never entered the reading room in the Hotel de Ville. By means of this bulletin the library therefore plays a part in providing information for government officials on running municipal affairs and also contributes to their regular training, when they are preparing for internal competitions, for instance.

The administrative library is also open to the public, as are all the libraries under the control of the Paris libraries office. As opposed to Paris Mairie officials, however, "external" readers may only consult books on the spot in the reading room.

The external users of the library consist mainly of law or economics and politics students, researchers on 19th and 20th century history (in particular the history of Paris), architects, town planners, etc. It should be borne in mind that many students come to the Hotel de Ville's library in search of working

conditions not always provided by the university libraries which they ought to use and for which the specialist libraries cannot long be a substitute without the risk of failing to provide an efficient service to established researchers. The "rush-hour" is noticeable as university exams approach or when specific libraries in the vicinity are closed.

A large proprotion of our acquisitions and periodicals subscriptions, such as legal theses, studies of 19th and 20th century administrative, political, economic and social history, study aids, etc., are intended for university researchers whom we are delighted to see working at the administrative library. With this in mind we are continuing to enhance our collection of old printed books and manuscripts with purchases from specialist bookshops or at public auctions. In order to make a greater number of researchers aware of these collections we have implemented a policy of publishing catalogues printed under subject headings, in addition to organising exhibitions of some of our documents or lending documents for exhibitions elsewhere(9).

Naturally use of the administrative library's documents cannot be categorised as neatly as my account might suggest. In fact, just as most of the students use law manuals or periodicals which in our view should primarily fulfil the requirements of the Paris administration, so historical works, even old books are frequently used to answer questions from the municipal authorities.

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This last comment brings me to my concluding words on the general subject of this conference. Is it not expensive to run an administrative library? I have no hesitation in replying in the

affirmative. As in all specialised libraries, the acquisition of works is a costly business, and numerous subscriptions to periodicals are required. In addition there has to be a sufficient number of qualified staff to meet the documentary needs of government departments. On the other hand the repetitive tasks likely to become less expensive through automation or centralisation are far fewer than for public reading facilities.

The government departments in charge are therefore tempted to make their administrative libraries profitable in such a way that this can be evaluated, by opening them to the public, in my view a praiseworthy aim. Unfortunately it is more difficult to let it be known that the administrative libraries are profitable only because of the information they disseminate for better running of the public service.

Pierre CASSELLE,
Librarian at the Administrative
Library of the City of Paris.

NOTES

(1) L. Vidal, Essai sur les bibliothèques administratives, Paris, 1843.

(2) Administration of libraries and public reading, Répertoire des bibliothèques et organismes de documentation, Paris, 1971. Guide des centres d'information et de documentation des administrations: Paris et Ile-de-France, Paris, 1982. The ORIADOC database can be interrogated on line to call up the list of libraries and documentation centres belonging to the government departments.

(3) M. Dreyfus, Les sources de l'histoire ouvrière, sociale et industrielle en France..., Paris, 1987, p. 241.

(4) The Library was registered in the Supplement to the List of Historical Monuments in 1988.

(5) The foreign collection of the Administrative Library, totalling nearly 50 000 volumes and dating from the middle of the 19th century to roughly the 1920s, is in the process of being catalogued.

(6) L. Béquet, Répertoire du droit administratif, volume 3, Paris, 1985, p. 491.

(7) Despite the law of 17 July 1978 conferring this role on the services producing administrative documents and not on libraries, even administrative libraries.

(8) See: Se documenter à la Ville: réportoire des cellules documentaires, Mairie de Paris, Bureau de la Formation professionnelle, 1988.

(9) Catalogue des manuscrits de la Bibliothèque administrative de la Ville de Paris, Paris, 1988; Des grands chantiers... hier, Paris, 1988; Livre du centenaire de la reconstruction de l'Hotel de Ville, Paris, 1982. The Administrative Library prepares for publication catalogues covering its collections on the former French and British colonies, and its collections from the United States, Germany and Austria/Hungary.

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LEGAL DATABASES IN FRANCE

by Anny Maximin

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THE CURRENT MARKET

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LEGAL DATABASES IN FRANCE

by Anny Maximin

THE CURRENT MARKET

Over the last few years France has witnessed a proliferation in the number of laws and regulations reaching the statute book due to the increasing tendency of the State to intervene in the economic and social life of the country. On average, some 9,000 legal texts are voted or signed into law each year. Furthermore, judicial decisions also represent an equally important part in the creation of law since judges are not content merely to interpret the law, they actually seek to fill in the gaps left by the legislator. The number of court rulings handed down each year is large, 26,000 just for the two Supreme Courts, the Conseil d'Etat (the administrative tribunal of last resort) and the Cour de Cassation (Supreme Court of Appeal). Conversely, the number of rulings that are published remains quite low: 20% for the Cour de Cassation and 10 to 15% for the Conseil d'Etat. By comparison, the level is approximately 2% for the courts of first instance and the Appeal Courts, and the time to publication is long. This poses the problem of accessing the information.

Legal data processing is the "science of processing legal information by computer", and France certainly has an enviable track record where databases are concerned: the first studies carried out by IRETIJ (Institut de Recherches et d'Etudes pour le traitement de l'informatique juridique - Institute for the Research and Study of Legal Information Processing) date back to 1965: but it was not until the period between 1981 and 1983 that legal databases underwent something of a boom. Although the various legal databases were complementary with regard to the fields they covered - that is to say their contents increasingly began to resemble one another - they remained incompatible at the technical level. Moreover, the legal world proved incapable of handling these sophisticated documentary instruments, and because they failed to attract customers and to provide a sufficient return on investment, it became very difficult for them to continue their growth. The turning point for legal databases came when the Prime Minister commissioned a report in 1983 from Pierre LECLERCQ, a judge at the Paris Court of Appeal. The result of this was to force compilers asking for State subsidies to reorganise their legal databases. Those databases are now distributed by a single office, JURIDIAL, and by the same host, Télésystèmes-Questel.

In spite of this, potential users have felt confused by their number, technical differences and shortcomings. The market for legal databases remains

1. THE COMPLEXITY OF THE LEGAL DATABASE MARKET IN FRANCE

In spite of the LECLERCQ report, there continues to be a proliferation of French legal databases due to the large number of compilers. What sets them apart from one another is not only their structure but the way they are accessed.

1.1 THE COMPILERS OF LEGAL DATABASES AND THEIR PRODUCTS

The market is split between three main categories: those that are marketed by Juridial and offer legal databases of a general nature; Téléconsulte, which refused to become a party to Juridial fearing it would be swallowed up; and, finally, databases that specialise in one field of law.

1.1.1 JURIDIAL markets the services of three main producers:

- the CNIJ (Centre National d'informatique juridique - the National Legal Data Processing Centre) which is connected to the Journal Officiel (Official Gazette). It has replaced the CEDIJ which was set up at the instigation of the Conseil d'Etat. The CNIJ offers 6 databases*. Not only is the CNIJ able to provide documentation on rulings of the Supreme Courts (CASS, JADE) but it also allows the user access to the sources of law: the different codes of law (LEGI) and the Official Gazette (LEX). Published rulings are generally published in the different law reports, whereas unpublished rulings have only been included since 1986/1987, and then only after selection.

- JURISDATA (published by the Editions Techniques) offers a database of judicial decisions known as JURIS; this contains judgments, whether published or not, handed down by the Courts of Appeal of Paris (since 1971) and of the provinces (since 1972 for published judgments, and, since 1986, for 15% of unpublished rulings). Juris also contains decisions by the Supreme Courts and articles on legal doctrine (extracted from a total of 50 journals).

- Finally, SYDONI produces background information databases which fall into the category of electronic encyclopaedia advocated by P. LECLERCQ. There are three specialised databases on offer: Law of Banking Practices (BAN) compiled by the Caisse Nationale de Crédit Agricole; the Social Security Jurisprudence database (SOC) and the Tax Jurisprudence database (TAX), both compiled by the publisher Francis LEFEBVRE.

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* (7 as of 28 March 1989 since users can have direct access to all judgments by the Court of Justice of the European Communities)

These three producers, CEDIJ, JURISDATA, SYDONI, have accepted the rules set out in the LECLERCQ report, but the same does not apply to Téléconsulte.

1.1.2 Téléconsulte is a subsidiary of the magazine Le Point. It uses an American software programme called Lexis which is marketed by the legal host Mead Data. Data inputting is done in South East Asia (Korea). The LECLERCQ report had suggested that databases ought to be specialised so as to eliminate redundancy. In spite of that, Téléconsulte markets databases that exactly match the fields covered by the CNIJ, i.e. all the judgments of the Conseil d'Etat (Conset, since 1964), the Cour de Cassation (CASSCI, since 1959 for the civil and commercial chambers, and since 1970 for the criminal chamber)*. Téléconsulte-Lexis also carries all the international conventions and treaties since 1564 to which France is a party, irrespective of whether they have been ratified, as well as 180 collective agreements, 55 codes of law, the official bulletins of many of the ministries, and much else besides. The fact that Téléconsulte-Lexis is installed on the American host means that the same software allows the user to access all court decisions in the United States, the United Kingdom, and even in New Zealand and Australia.

It becomes clear from looking at the contents of Téléconsulte's databases that it would have been impossible for them to have been marketed by JURIDIAL. In fact, P. LECLERCQ even went so far as to predict that Téléconsulte would disappear!

1.1.3 Specialised databases

There are many of them, and it would be a vain task indeed to wish to cover them all. Nevertheless, the most important include:

- RESAGRI, a co-production by the Ministry of Agriculture, the Crédit Agricole and the Mutualité Agricole : rural law.
- SIGAD (Union of Mining and Metal-Working Industries): social legislation.
- JURINPI (National Industrial Property Institute): trademark and patent law.

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* all the judgments here means those proposed by the judges of the Supreme Courts and not the full version of the decisions. The CNIJ selects its material from the judgments it receives. Téléconsulte-Lexis carries all the judgments proposed by the judges.

- INFOCIAL ("Le Particulier" - The Individual): social legislation.
- INFOGRAL (The Laboratory of the CNRS - National Centre for Scientific Research): local authority law.

A large number of these databases, which can be accessed via Minitel, are hardly worth mentioning, so disappointing is the documentary information they contain. It can be said, therefore, that there is a wide range of legal databases, but also that they present a degree of complexity with regard to the data recording techniques they use.

1.2 Data recording techniques

Different techniques are used for creating databases.

1.2.1 The full unedited text

is the way Téléconsulte works. The primary document is entered, the only addition being a reference to allow the user to locate the source. The advantage of this system is that the information can be kept up-to-date (approximately 4 weeks) and can be maintained at a very comprehensive level (no selection). The user can interrogate the system using natural language.

1.2.2 The enhanced full-text

This technique involves entering the full unedited text and adding to it elements which facilitate searches and interpretation. Users may interrogate the system using implicit notions, which allows them more readily to determine whether the text is relevant or not.

This is the processing mode adopted by the CNIJ with the exception of LEX, which appears in the form of bibliographical references.

1.2.3 The abstract

This method was developed by the IRETIJ (Institute for the Research and Study of Legal Information Processing) in Montpellier. It has also been adopted by JURIDOC, JURINPI and JURISDATA, and is particularly well-suited to decisions of courts dealing with the substance of a case which tend to be very long and to mingle aspects relating to the law and aspects relating to the facts.

Presenting information in abstract form means that the judgment is divided into new paragraphs every time a new legal point is broached.

To make things more readily understandable, the abstracts are usually prefaced by a summary written in clear language providing information that has not been incorporated into the abstract.

1.2.4 The summary

The method adopted by SYDONI consists of summaries written in clear language provided with an explanatory title which includes a reference for document identification purposes and an outline of the legal principles involved. The summary discusses these legal principles, but also covers the salient elements and the solution.

Furthermore, SYDONI documents are indexed and the thesaurus contains semantic cross-references, such as synonyms, hierarchy and environment, which is obviously good for the user.

However, it is not just the method of recording data, i.e. full-text, abstracts, summaries, etc., which distinguishes legal databases; there are also different methods for accessing the information.

1.3 Access to Legal Databases

A number of different hardware solutions are available, and some databases allow multi-vendor access. Producers of legal databases offer this possibility in order to open up their products to as large a public as possible.

1.3.1 The asynchronous terminal

This was the preferred solution between 1980 and 1983. It provides a link via modem to the switched public network operated by the PTT allowing the user access to all hosts irrespective of data transmission speed (300, 1200 or 4800 bauds (1200 bauds = 120 characters per second).

1.3.2 Microcomputers fitted with a modem card offer multi-connection access to hosts, and, in addition, allow data to be downloaded and processed locally, which means lower costs and the possibility of establishing one's own database.

1.3.3 Videotex constitutes a revolution as far as public access to databases is concerned. The multi-level kiosk facility will ensure broader use of legal documentary information. Juridial and Téléconsulte are accessible via Minitel. Some databases can only be accessed via Minitel (Infocial, Infogral).

1.3.4 CD ROM (compact disc read-only memory) is starting to penetrate the market. In the legal field Laser-Media is marketing DIOCLES (the legal data service of JURISDATA), and Juridial in association with publishers Jouve is offering VAT 88. Data are to be updated once a quarter or twice yearly, whereby all recent information can be retrieved by interrogating the system in the dial-up mode.

We can say, therefore, that there is a rich market of legal databases in France, in terms of both the information available and the means of accessing the information. Users, nevertheless, seem reticent to use them.

2. Slack Market for Legal Databases

The LECLERCQ report estimated that within a short period legal databases would be consulted some 30,000 hours a year. Unfortunately, we have come nowhere near that figure. Legal databases account for only 8 to 9% of the whole database market in France. The usefulness of legal databases no longer needs proving: fast access to information, information on record virtually complete. This therefore begs the question: what is it that stands in the way of more widespread use? There are clearly technical obstacles, but psychological barriers also play a role.

2.1 Relative complexity of accessing information

2.1.1 Complex interrogation techniques

Pierre LECLERCQ made the point clearly when he wrote in his report that "the same terminal, the same connection procedure, and the same interrogation language" should give everyone access to the whole range of legal databases: "The existence of a single technical solution will represent an effective counterweight to existing disparities where access to computerised legal documentation is concerned".

Where do we stand today? Harmonisation is still limited. No doubt, one should distinguish between the legal databases accessible via Juridial and the others. Questel + software has indeed harmonised procedures, at least in theory, but each database has retained its specificity: for instance, searches by "links" (legal basis) have to be written in three different ways depending on which database needs to be accessed; this is likely to put the occasional user off.

Interrogation by terms is equally complex, since the problem of polysemia has to be taken into account. Thus, the word "avoir" which has a very precise meaning in commercial law (assets) must not be confused with the auxiliary "to have", and the system cannot distinguish between them since it operates by finding a sequence of characters. So unless great care is taken, one may end up with a great deal of information that is not relevant to the case. In order to prevent the generation of unwanted data, the interrogation procedure has to be better targeted by the use of more precise notions.

In the same manner the use of the full unedited text allows the user to interrogate the database in normal language. However, he will be confronted by the problem of variations in the legal vocabulary used by the legislator and by the judges: "An intimate understanding of the language used by the author in the document being searched is a prerequisite". Certain concepts of law are not clarified and cannot therefore be retrieved; on the other hand, however, the large volume of information on record allows a great deal of flexibility, thereby facilitating the task of anyone who wishes to find out what precedents have been established by judicial decisions on a specific point.

2.1.2 The need to be well acquainted with the documentary basis of each database

It is important to know where to find the information and how to look for it. Although the structure of the Supreme Courts' judgments is always the same, the situation is quite different for the Courts of Appeal and other courts of law. Whether the material is presented in the form of abstracts, summaries or key words, the user must not only know his field, he must also be familiar with the method of interrogation.

It is not the occasional but the frequent user who will be able to really derive benefit from the system. The former will tend to become quickly discouraged and adopt a negative attitude because of the paucity of the results obtained, whereas his inexperience will in fact have caused him to overlook an important piece of information.

2.1.3 The cost of searches is often dissuasive

Lawyers are not accustomed to paying for their information directly. Subscriptions to the main journals and the purchase of reference works are put down to general overheads, unless one happens to have recourse to a specialised library!

By the same token, clients are not charged directly for the time lawyers spend preparing their cases, searching for information and analysing that information, and there are few who actually invoice the hours that they or their assistants spend working on a case.

On the other hand, the bill sent for each interrogation of the system makes the cost of information more tangible and prompts a response not so much of rejection, but of surprise and thought: do the answers warrant the expense...

True, legal databases in France are particularly expensive. Juridial charges an annual fee and Téléconsulte a monthly subscription, which has to be amortised, and to which a charge per search has to be added in both cases. However, with a bit of practice, the average search takes between 5 and 20 minutes, and how can one baulk at a few hundred francs when one considers that the sums involved in a court case or in some other affair are many times greater...

The technical barriers that have been discussed so far clearly stand in the way of a more extensive use of legal databases; but there are also intellectual and psychological factors at play.

2.2 Psychological Barriers Limiting the Use of Databases

The first has to do with the very contents of the databases, the second with the reserved attitude of lawyers, judges and other legal specialists.

2.2.1 Shortcomings in the documentary base

Critics of legal databases point to two kinds of shortcomings: first, that the documents on record are not exhaustive and, second, that the fields covered are incomplete, so that all branches of the law are not equally represented.

Of course, the whole idea of an exhaustive database is relative in terms of both time and space. None of the compilers claims to provide all existing documentation, but in many cases they tend to select material on the basis of criteria which the user is unable to fathom. Equally, databases must have a starting date, and they only contain old documents in very rare cases in

view of the fundamental nature of such references. The CNIJ is one of those rare cases since it includes famous judgments that predate the establishment of its database.

It is also true that the judgments of the provincial courts are not all on record. The different Appeal Courts only joined Jurisdata in 1986 and the various regional working groups that have been set up operate a selection procedure by which they leave out judgments which they consider to be redundant or of little interest. Thus, although there is clearly no exhaustive catalogue, there is a much greater wealth of information available than any individual could hope to gather by any other means. Is it possible to quickly scan through all the rulings handed down by the 22 chambers of the Paris Court of Appeal? For that to be possible at all one would need to have access to unpublished decisions, which would mean that the whole process of reading and understanding the texts would take up much more time than that needed by the computer to read and select documents on the basis of the question asked.

But that still does not solve the problem of the courts of first instance, since many of their judgments are not contained in the databases, and it is they that have the responsibility of providing the first interpretation of all new laws. It takes approximately six to seven months for a suit to reach the appeal stage, and therefore, for it to be recorded and become known. The same applies to the administrative tribunals, since JADE only covers a very limited number of rulings.

The shortcomings with regard to the documentary base are somewhat more worrying. After all, the editors of databases prepare their material in full awareness of their target public (lawyers, judges), and therefore some branches of the law hardly get a mention.

There are very few criminal court judgments on file, except in cases where the judgment has been published or written about in a journal. The same thing applies to public health law: lawyers do not seem to be very interested in the subject. Community law, too, rates almost no mention in the legal databases, and only Téléconsulte offers judgments of the Court of Justice and the Official Journal of the European Communities (L series). Since 28 March 1989 the CNIJ has also been offering its users judgments from the Court of Justice of the European Communities. It is to be hoped that compilers will do more to record Community law in the run-up to the single market of 1993.

In addition to these structural disadvantages, mention must also be made of certain psychological hesitations.

2.2.2 The reticence of the legal profession and the judiciary

The role of the legal profession and the judiciary in the development of legal databases is an obvious one. They are the people who need the information in their daily work, and yet the use they make of them is well below what one might have expected. Although CEDIA (the computerised documentation centre serving lawyers registered with the Paris Bar Association) is the largest user of databases, there are few individuals who make use of the service.

The structural causes outlined above may well put potential users off, but a further complication exists due to the reserved attitude typical of the profession. After all, "the role of machines is not to supplant man's ability to think". Data processing must not be used to offer lawyers ready-made solutions for if that were to happen the profession would simply dry up and wither. Unless there is room for initiative the law will remain rigid and the legal profession will go into decline.

Consequently lawyers have to learn to control this technology with a view to ensuring that the system remains in balance. Confusion is created when lawyers think that they will find the state of positive law, when in fact they are simply being provided with the sources. In much the same way, some highly specialised lawyers are themselves the source of positive law, and thus derive no benefit from the use of databases. What should not be forgotten is that databases can only provide information and not solutions: each case is different, and there is room for argument, discussion and reasoning, because "it is not knowledge which gives one lawyer the lead over another, but the superior ability in presenting legal argument".

Once the structural barriers have been eliminated and databases are harmonised both in terms of content and methods of access, sufficiently well-trained and informed lawyers will become enlightened users of legal data processing.

Legal databases are electronic libraries, a modern version of our traditional legal encyclopaedias, which can offer millions of references via a very small instrument, be it a Minitel or a microcomputer. There is a plethora of reliable information covering virtually all branches of the law.

Software programmes allow the user to "flip through" the contents, like the indexes of law reports. Learning to use the system is no more complicated than learning to use certain recapitulatory tables.

This extraordinary tool can provide a user in just 5 to 20 minutes with specific, unpublished documents, documents which are therefore not accessible to anyone anywhere, provided the person learns how to make the most of this wealth of information, and the Minitel with its simplified access procedures makes the going even easier.

Working with legal documentation on computer will one day have to become another element in the culture of all lawyers.

Anny Maximin, Librarian
SEDAC-BIBLIOTHEQUE CUJAS of Law and Economics at Paris

I - COURT DECISIONS: 1/CIVIL COURT DECISIONS

	COMPILER	NAME OF BASE	DATE LAUNCHED	FORM	NUMBER OF REFERENCES	UPDATE
SUPREME COURT OF APPEAL	CNIJ (TS = Télésystèmes-Questel	CASS	Civ.Com.: 1960 Crim.: 1965 unpubl. 1970 + major decisions	full-text	not available	not available
	JURISDATA (Télésystèmes, Juriadata)	JURIS	Supr. Court of Appeal	abstract		4 months
	LEXIS/Téléconsulte (Mead Data)	PRIVE	Civ. 1/10/1959 Crim./1.01.1970	full-text "	175,000 30,000	2 months 2 months
COURTS OF APPEAL	JURISDATA	JURIS	PARIS: 1971/1977 all judgments . 1977 = 50% PROVINCES: . 1972 = decisions published in journals . 1980/1985 selection of unpublished rulings of 20 courts . 1986 = 15% of all court judgments	abstract + summary	267,000	2 months
	LEXIS/Téléconsulte (Mead Data)	APPEL	Bordeaux, Lyons Montpellier since 1983	full-text	13,000	2 to 3 months
OTHER COURTS	JURISDATA (TS)	JURIS	TGI*, TI*, industrial tribunals	decisions published 1972		2 months

* TGI = Tribunaux de grande instance (approx. = County Court)
TI = Tribunaux d'instance (approx. = magistrates' court)

2/ ADMINISTRATIVE COURT DECISIONS

	COMPILER	NAME OF BASE	DATE LAUNCHED	FORM	NUMBER OF REFERENCES	UPDATE
CONSEIL D'ETAT	LEXIS (Mead Data)	CONSET (full version)	1.10.64	full-text	75,000	2 months
	CNIJ (TS)	JADE selection	Fiscal Lebon Report 1965 General: unpubl:1983 Lebon: 1968 Major decisions published: 1976	enhanced full-text	not available	not available
ADMINISTRATIVE TRIBUNALS	CNIJ (TS)	JADE selection	LEBON 1971 selection by the courts Versailles 1978 Grenoble and Clermont Ferrand 1984 environment 1976	full-text	not available	not available
CONSEIL CONSTITUTIONNEL	LEXIS (M.D.)	CONSTIT	4.12.58	full-text	1,000	2 months
	CNIJ (TS)	CONSTIT	1958 + letters of seisin	enhanced full-text	all decisions	permanent update
TRIBUNAL DES CONFLITS	CNIJ (TS)	JADE	published by Lebon since 1973	enhanced full-text	not available	not available
	LEXIS (M.D.)		1.10.1964	full-text	600	1 month

II - DOCTRINE: 1/PRIVATE DOCTRINE

	COMPILER	NAME OF BASE	DATE LAUNCHED	FORM	NUMBER OF REFERENCES	UPDATE
SOCIAL LAW	SYDONI (F. Lefebvre)	SOC	1972	summary Thesaurus	36,000	1 month
BANKING LAW AND PRACTICES	SYDONI (Caisse nationale de Cr. Agricole	BAN	1972	summary Thesaurus	20,000	1 month
FISCAL LAW	SYDONI (F. Lefebvre)	TAX	1972	summary Thesaurus	93,000	1 month
SEMAINE SOCIALE LAMY	LEXIS (MD)	LAMY	4/2/80 (since launch)*	full-text	4,000	1 month
BIBLIOGR. FILE OF THE SUPR. COURT OF APPEAL	CNIJ (TS)	DIVA	since 1970	references	50 reviews analysed	not available
PRIVATE LAW	JURISDATA	JURIS	since 1970 or 1981	analytical references	58 reviews analysed	1-2 months

2/ ADMINISTRATIVE LAW

	COMPILER	NAME OF BASE	DATE LAUNCHED	FORM	NUMBER OF REFERENCES	UPDATE
MEDIATOR (proposed reforms)	CNIJ (TS)	DIVA	ORIGIN	full-text	not available	not available
ADMINISTRATIVE SCIENCE (France and abroad)	CERSA Paris Univ. (TS)	FRANCIS Administration	1972	bibliogr. references		varies
ADMINISTRATIVE LAW	CNIJ (TS)	DIVA	1970	references	50 reviews analysed	not available
LOCAL AUTHORITIES' LAW	CNRS Laboratory (Videotex access)	INFOGRAL		bibliogr. references + summary		monthly

III - LAW, REGULATIONS AND AGREEMENTS

	COMPILER	NAME OF BASE	DATE LAUNCHED	FORM	NUMBER OF REFERENCES	UPDATE
OFFICIAL GAZETTE Law and decrees	LEXIS (M.D.)	J.O.	1.01.1955	full-text	160,000	1 week
	CNIJ (TS)	LEGI	Selection until 1987	full-text	not available	not available
	Gen. Secretariat of the Government (TS)	LEX	origin	references (chaining of texts)	252,000	72 hours
CODES	LEXIS (MD)	CODES	55 codes	full-text	60,000	permanent update
	CNIJ (TS)	LEGI		enhanced full-text		permanent update
COLLECTIVE AGREEMENTS	LEXIS (MD)	collective agreements	180 national agreements	full-text	4,500	permanent update
OFFICIAL BULLETINS	LEXIS (MD)	Official Bulletins	Social. aff. DGI-Labour town planning, dom. transport etc. 1955 or '70	full-text betw. 1955 or 1970	26,000	4-6 weeks
	CNIJ (TS)	LEGI	Laws relating to certain fields: business, tax, social, environ., local authorities	full-text	not available	not available
Bilateral and multilateral TREATIES to which France is a party	LEXIS (MD)	INTNAT	30.10.1564	full-text	5,500	permanent update

IV - PARLIAMENTARY WORK

	COMPILER	NAME OF BASE	DATE LAUNCHED	FORM	NUMBER OF REFERENCES	UPDATE
PROGRESS OF LEGISLATIVE TEXTS	National Assembly (TS)	Process	June '81	Ref.	2,400 units	daily
QUESTIONS ASKED BY SENATORS	SENAT (SINORG)	QS O 1		references	45,000	weekly
TEXTS DISSEMINATED	SENATE (SINORG)	SENAT	Apr. '78	refs.	8,000	monthly
STATEMENTS GIVEN IN THE SENATE in public session	SENAT (SINORG)	SINT	Apr. '78	refs.	20,000	monthly
PARLIAMENTARY QUESTIONS (O.G. debates)	National Assembly (TS)	Questa 6 Questa 7 Questa 8	2-Apr. '78 (6th legislature)	refs. with loc. in O.G.	Q6 47,800 Q7 83,450 Q8 7,922	3 days
PROGRESS OF LEGISLATIVE TEXTS	SENAT (TS)	PARL		refs.	5,000	1 week

Division: SPECIAL LIBRARIES
Section/RT: ADMINISTRATIVE LIBRARIES

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Access to Administrative Information

by Paul de Bourguesdon

Bibliothèque administrative de la Ville de Paris

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Access to Administrative Information

by Paul de Bourguesdon

You may wonder what a paper on access to administrative information in France is doing at an international meeting of librarians.

There are perhaps two reasons:

1. Access to administrative information is not merely a matter of the legal relations between the administration and the administered who are seeking information.

There is also not so much the legal but the practical matter of the free flow of information which is accessible chiefly through administrative reference libraries and documentation centres run by local authorities.

I shall not deal with the part played by libraries in access to administrative documents in this paper. I shall rather dwell on the "pathological" aspect of the issue, by which I mean the regulations that have been enacted to extend access by the individual to administrative information, even when that information is contentious.

2. A second reason may explain the presence of this paper at the IFLA conference. This year France is celebrating the Bicentenary of the French Revolution and of the Declaration of the Rights of Man. Article 15 of the Declaration states that "society has the right to call any public servant to account". Let us now consider how this principle is currently applied under the French legal system.

Part One: Access to Administrative Information and Its Antecedents

Sub-section 1: The influence of foreign models

France has not enjoyed a monopoly of legal innovation in this area. Indeed it has in some cases been inspired by foreign examples, and in others has led the way.

1. First we must make clear that two international organisations, chiefly the Council of Europe and, to a lesser extent, the Commission of the European Communities, have passed measures regarding access to administrative information in the broadest sense of the term.

2. Most ideas from outside France have, however, been copied from the national legislations of certain Western countries. Although I must necessarily leave out a great many countries, I would like to mention the Swedish law of 1766 on press freedom which contains the principle, enshrined in the Constitution, of the openness of government and administration. Moreover, we should not forget the initiative taken by the Federal State of Hesse in the Federal Republic of Germany, which developed laws on data protection and basic freedoms in 1970. And finally, let us not forget the 1966 Freedom of Information Act in the United States (updated in 1974) that gives American citizens access to information, and the 1974 Privacy Act which protects individuals' privacy and restricts access to their files.

Sub-section 2: French administrative structures: characteristics and shortcomings

It is not the influence of foreign models alone that has given rise to French legislation favouring access to administrative information. It has also come about because of the nature of the administrative structures in France and because of shortcomings within these structures.

1. The French State and Administration are heirs to a tradition, albeit vital to the creation of France, of centralisation, secrecy and subjection of the public that goes back to the Ancien Régime, and even to the 14th century. The French Revolution we are now celebrating did not put an end to that state of affairs. The Revolution was happy to modernise and pursue these principles with renewed vigour.

Similarly, civil servants owe, and always have owed, a duty of professional discretion in their dealings with the public.

2. My second observation is that in France, unlike in other, particularly English-speaking countries, disputes between members of the public and the administration are governed by a body of specific rules called Administrative Law. Such disputes are settled by a legal system which is different to that used for deciding claims between private persons. Its chief institutions are the administrative courts and the Conseil d'Etat (the administrative tribunal of last resort).

Moreover, public authorities have always enjoyed, and continue to enjoy, far-reaching prerogatives in ordinary law.

3. Thirdly, a number of checks and balances has existed for a long time as a counterweight to this system: questions addressed by Members of Parliament to the Government; Parliamentary Commissions of Enquiry. We can also mention the fact that most important texts emanating from the administration are published in the Official Gazette, and that there is a body called the Documentation Service whose main task is to publish and disseminate official publications and reports.

Finally, a third corrective factor is the way legal decisions have developed in the Conseil d'Etat. Indeed the Conseil has anticipated reforms in access to administrative information. We shall now examine these reforms.

Part 2: Legal Provision for Access to Administrative Information

We shall now look in turn at three laws which have a direct or indirect bearing on access to administrative information: the Law on computerised data; the Law on Unrestricted Access to Administrative Documents; and the Law on the Justification of Administrative Acts.

Sub-section 1: The Law of 6th January 1979 on Data Processing, Data Files and Basic Freedoms

Let us examine the scope of this law, the obligations of those holding files, and the rights of individuals who are on file.

1. Scope of the law: the law covers data files of named natural persons. Handwritten or typed files and those held on computer all come within the ambit of the law.

Although the law contains principles regarding files belonging to natural and legal persons under private law, its provisions really deal with public service bodies, namely the State and its ministeries and departments, territorial authorities, public administrative establishments and legal persons under private law which administer a public service (for example, Social Security Funds).

2. The obligations of public holders of files: an independent administrative body called the CNIL (Commission Nationale de l'Informatique et des Libertés - a Data Protection Agency) has been set up. It is a legal entity under public law that is independent of the State's administrative authorities. Its role is threefold:

a) It examines plans for placing information on file, particularly on data processing files, to make sure they comply with legal principles of freedom and protection of the persons to be placed on the files.
b) The CNIL's second function is to arbitrate between claims made by members of the public and the authority concerned, to issue warnings to the administration or to institute legal proceedings if necessary.
c) The CNIL has a statutory duty to intervene if a member of the public seeks disclosure of files which contain sensitive information affecting national security or counter-espionage.
d) The CNIL's final task is standardisation. It produces standard models and simplified standards.

3. In Part 3 of this section on data protection law let us consider the rights of individuals who are on file.

Essentially they enjoy two rights:

a) the right to prior information about the intention to place data on file where the files may include the names of the persons concerned. Information such as racial background, membership of a trade union, political, philosophical or religious opinions may not be put on file except in one very narrowly-defined case. These administrations must therefore make public the administrative instruments which authorise the creation of files.

b) the second right of persons on file: the right of individual access and redress, which is subject to special arrangements and restrictions in the case of data pertaining to national security, public safety, counter-espionage and medical records.

Sub-section 2: The Law of 17th July 1978. Its first heading concerns access to administrative documents

We shall consider in turn the scope of this law, what right of access exists and the procedure for claiming that right.

1. Scope of the Law: the law covers all types of administrative documents (a precise definition is given in the Law) with the exception of preparatory acts done by public bodies (and like entities) as defined in the law on data processing discussed above.

This law on access to documents concerns documents which bear no personal name and, since the enactment of the 1979 Law on Justification which we shall examine presently, it also covers documents referring to named persons.

2. Right of access: anyone has access to documents which are anonymous. Those which do carry a name are, logically enough, only available to the person concerned. Access to personal medical records can only be provided through a doctor chosen by that person.

There are eight exceptions to the general right of access to documents bearing an individual's name. They include: secrecy of deliberations of the Executive, national defence secrets, diplomatic secrets, secrecy concerning economic and financial policy and the confidentiality of judicial proceedings.

Because of this provision, successive governments have committed individual ministeries to publishing a list of their documents, both open and restricted, and now all these ministerial lists have been drawn up.

3. Procedure of implementing the right of access: as with the data processing law discussed above, an independent administrative body has been set up, called CADA - The Commission on Access to Administrative Documents. To put it in extremely simple terms, its role is that of an intermediary between the applicant, a private person, and the administration from which the applicant seeks disclosure of a document.

The procedure provided for by the law grants the administration a given deadline for release of the documents. If it has not responded after two months, this is taken as tacit refusal and the applicant can bring his case before CADA.

CADA is required to adjudicate before the applicant takes the case to an administrative magistrate. Furthermore a decree of 28 April 1988 has reduced the duration of the whole procedure (six months from start to finish).

The law further accords a right of reply which means that any person has the right to have his observations recorded in the disclosed document.

So as to cover everything, I shall conclude this section by mentioning the Co-ordinating Commission for Administrative Documentation which was set up in 1971 and reformed in 1985 and 1989. It was this Commission which drew up and monitored the reforms described here and which was behind a policy of greater co-ordination of computer and office systems in the administration. It was also behind a policy demanding consistency in the production of legal data-bases.

Sub-section 3: The Law of 11 July 1979 on justification of administrative acts and the improvement of relations between the administration and the public

This Law, unlike the other two, makes no provision for an independent body to monitor the authorities' compliance with legal duties.

The law does not institute a general duty of justification because the legislators felt it would be incompatible with efficient administrative practice and would lead civil servants to preface their decisions with purely conventional preambles.

Justification is required only for administrative decisions where an individual may have been treated unfavourably or unfairly.

The law lists the types of decision where this applies. First, however, we should make it clear that we are dealing partly with the legal codification of changes in legal practice, and partly with innovations or the extension of principles which sanction advances in constitutional government and which must be decided by Parliament.

These types of decision are notably: decisions which curtail common rights (e.g. forfeiture of French nationality); decisions which constitute a police measure or inflict a punishment; decisions which rescind or repeal a decision which granted a right.

There is also a category of decisions which is quite difficult to define in legal terms, i.e. decisions which deprive an individual of a benefit where the benefit should be granted as of right to anyone who meets the legal conditions attached to it.

We should add that grounds do not have to be given for decisions regarding the exceptions under the preceding law on access to administrative documents (e.g. those pertaining to national defence). This is quite acceptable as requesting justification for documents in this domain would, in most cases, be tantamount to seeking justification of a statutory text. However, it is where individual decisions are concerned that there is greatest interest in finding out why they were taken. A law of 17 January 1986 added to the list of decisions requiring justification those which turn down aid or subsidies for health and social welfare activities.

Finally, we should note that if a case is particularly urgent the justification may be provided within one month.

Part Three. The Extent of Access to Administrative Information

Various additional provisions have extended the beneficial effect of these three laws in France. They cover different areas: consultation of records; access to police records; and more democratic town planning procedures.

I should first like to refer to a decree of 28 November 1983 on relations between the administration and the public.

This important decree stipulates, notably, that state authorities must acknowledge receipt of requests from the public and provide the public with all the information about the department dealing with the request, appeal deadlines etc.

The decree also says that administrative circulars and directives are open to challenge - which is new - and it establishes a modicum of public involvement in some aspects of the administrative decision-making process.

The second point I must make in Part Three is that there is still room for improvement.

We must first recognise that these laws and their implementing decrees have been generally respected. Contrary to what one might think, there is no point in extending the scope of these laws as their value lies in their specific nature.

However some reforms would be welcome: the data processing law could be simplified; the decree of 1983 could be extended to cover local authorities; the CNIL (Data Protection) and CADA (Access to Administrative Documents) could be merged.

By way of a conclusion I would make some general comments.

1. Firstly, recalling once again the Declaration of the Rights of Man and the Citizen, we should ask whether these three laws constitute a third generation of human rights after the proclamation of civil and political rights in 1789 and the affirmation of social and economic rights in the Preamble to the French Constitution of October 1946.

We are hence talking here about a corpus of modern regulations for administering the life of adult citizens who are being given a small say in the way administrative decisions are taken. This is a first effort at participative administration and it may portend new rights.

2. We must recall that when members of the public seek, let us say, local documents, they generally have to deal with the Town Hall, not with a library.

Moreover in France, as in other countries, we live with a legal fiction that is contained in the adage "ignorance of the law is no excuse", which obviously cannot always apply.

Therefore, in spite of the importance of the laws we have just examined, they will probably be used only by the most well-informed citizens, whilst all others will remain unaware of their existence.

3. Finally, we can say that efforts to develop the flow of administrative information must be linked to administrative reform. France's administrative history is littered with efforts, most of which came to nought, to lift state secrecy or at least condemn its shortcomings.

Let us finish by expressing the hope that the French citizen will not be condemned, like Sisyphus, to rolling the stone constantly to the top of the hill.

Paul DE BOURGUESDON
BIBLIOTHEQUE ADMINISTRATIVE DE
LA VILLE DE PARIS

IFLA GENERAL CONFERENCE AND COUNCIL MEETING PARIS 1989

Division: Special Libraries

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Chinese MARC Database on CD-ROM

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ABSTRACT

To speed up the establishment of the database for the cataloging of books in Western languages, the National Central Library has adopted since 1986 the Biblio File of the Library of Congress initiated by the American Library Corporation. As the results are quite Satisfactory, it has occurred to us that the said bibliofile may be applied to the Chinese MARC database on CD-ROM. Therefore, in October 1987 the said Chinese MARC database on CD-ROM was set up by the National Central Library through the cooperation of the Mechanical Industry Research Laboratories of the Institute of Technology Research on Industry (ITRI) with their experiences in the development of the optical disc system.

The paper aims to describe briefly the purposes, scope, functions and characteristics of the said CD-ROM system, analyzes its utilization and possible expansion in the library services and thereby introduces this new product of the National Central Library to people concerned.

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Chinese MARC Database on CD-ROM

BY

Nancy Ou-lan Chou
Hsiu-ying Chiang
Pi-chuan Wu Wang

National Central Library

1. Introduction

The use of the optical discs in the 1980s is a breakthrough in the information technology: the audio optical disks were first commercialized in 1981; the optical disks for storing audio and video information were also merchandized in 1982; in 1985 the optical disk technology was successfully applied in documents filing and massive archives storing as well as data retrieval based on microcomputer operations. The Compact Disc Read Only Memory abbreviated as CD-ROM has been consequently initiated.

CD-ROM embodies audio-visual materials, computer magnetic tapes, magnetic disks and other kinds of information media. It records information with laser recording media, has a large capacity for information storage, is apt for mass duplication, conveniently portable, direct and prompt in reading the data, highly credible and accurate in its stored data, very low in cost and permanently storable. With these characteristics CD-ROM poses an important role both in library and information services and its development potentialities have been favorably anticipated by commercial circles and regarded as an important research subject by information science industry.

In the past two years CD-ROM has been developed so rapidly that it has extended itself into the field of online database operations an has turned the previously expensive online retrieval into the independent operations of personal computers. It has also been applied in publications, as it can, for example, transfer a comprehensive set of reference books into several optical disks to facilitate information storage and make reference reading more convenient and interesting. The library operations it has replaced microforms and

traditionally paper-bound books. Furthermore, it has gradually expanded its operations from the information written in Western languages to the database of optical disk information in Chinese. Therefore, this paper aims to introduce and evaluate the Chinese MARC database on CD-ROM that has been successfully developed to the Chinese bibliographic system with optical disk technology.

2. Chinese MARC Database on CD-ROM Pilot System

2.1 Orientation

In 1986 the National Central Library of the Republic of China started to use the BiblioFile developed by the American Library Corporation as reference tools for cataloging the Library's Western languages publications so as to promote the establishment of the database of Western-languages collections. Since the effects are very satisfactory it has occurred to NCL to develop the Chinese BiblioFile by positively resorting to the experiences in the utilization of the optical disk system.

In October 1987 with the earlier publication of the Continental's Standard English-Chinese Dictionary, the first domestic set of optical disk system developed by the Mechanical Science Laboratory of the Institute of Technology Research on Industry (ITRI) in Hsinchu, NCL began to develop the Chinese CD-ROM on joint venture with ITRI on the basis of ITRI's experiences in this aspect. According to the cooperation project the Chinese MARC database currently available in the National Central Library is to be transformed into optical disks by the Mechanical Science Laboratory with their application software system. A working group for the said development was activated by people on both parties to engage in the study of the formats and requirements. After four months' analysis and discussion the significant creative Chinese CD-ROM pilot system will be formulated by the Laboratory's experts. The trial of the said pilot system was completed in October 1988 with satisfactory and exciting results through thirteen months strenuous efforts.

2.2 Purposes and Scope

2.2.1. Purposes

With a view to unifying the formats of MARC database the National Central Library has jointly revised the Chinese MARC format with the Library Association of China in Taipei and positively promoted the establishment of the MARC database of books, periodicals new bibliographic entries have been input to the database. Aside from circulating the computer-printed new bibliographies monthly, NCL also renders services to

libraries at all levels for printing cards with computers.

In 1987 the National Central Library carried out the union cataloging project cooperatively with 16 national academic libraries in Taiwan Area so as to solve the cataloging problems at various libraries. Each of the participating academic library monthly input its new bibliographic records to the Chinese MARC input worksheet and then sent it to NCL for union cataloging on the database. The effects have been proved not so satisfactory, yet the project has paved the way for the library cooperative cataloging system in our country and has laid a foundation for the centralized cataloging and cooperative cataloging in the future. In order to accelerate the early realization of the ideal of cooperative cataloging and information resources sharing NCL has been actively developing the national bibliographic network and producing the bibliofiles in accordance with the new technology of optical disks so that the following purposes can be materialized:

(1). The Chinese MARC Database will be more broadly and conveniently utilized by readers for bibliographic information searching.

(2). The Chinese MARC Database on CD-ROM can be served as a very good cataloging tool by various large and small libraries at all levels.

2.2.2. Scope

In the said pilot system the Chinese MARC Database on CD-ROM will include two categories of bibliographic data:

(1). Chinese-language Books Bibliographic Records

This category includes all Chinese data input in 1986 and 1987 with about 20,000 Chinese MARC records.

(2). Periodicals Literature Indexes Data

This category includes 110, 521 articles published in more than 800 titles of domestic periodicals in Chinese and Western languages within four and half years from March 1983 to September 1987 that have been input with the specified National Central Library's Chinese MARC Format for Analytics.

In the application software system there will be two sub-systems: the cataloging sub-system and the periodical literature indexes sub-system. These two categories may be slightly different in software functions but they can be operated on the same CD-ROM system. Such a framework is not only a special characteristic but also a great breakthrough.

2.2.3. Formats

Since the development of the Chinese MARC Database on CD-ROM is based on the Chinese MARC Database worked out by the National Central Library, its formats should be as follows: The Chinese MARC Format is to be used for books. [1] The bibliographic entries should be based on the Chinese Cataloging Rules.[2] For periodical literature indexes the Chinese MARC Format for Analytics should be used. [3] The two formats mentioned above are formulated on the basis of ISO-2709 4 and will therefore be very conducive to the information exchange and resources sharing in the future.

3. The Pilot System Functions [5]

3.1 Chinese Bibliographic Data on CD-ROM

There are three sub-systems in this new system, namely, online operations, off-line operations and parameters made for display. They can be described respectively as follows:

3.1.1. Online Operation

This operation system serves for online searching through the use of such keys as authors, titles, author/titles, subject headings and classification numbers, by means of complete match or partial match and even with the indications of publication date (Please see Figures 1-7). The data are shown on the screen item by item in the outline form with entries including sequential numbers, titles, authors, edition, places of publication, publishers, and date of publication. As to certain specific data they can be shown with MARC formats and card formats (Please see Figure 8). In case the searched information contains only one entry it can be shown directly either with a MARC format and card form. All the searched data can be editorially revised with a list of cards, labels and proofsheets or recorded and stored on the magnetic tapes. Those data on magnetic tapes can also be retrieved, deleted and stored and it is even possible to make editorial revisions after retrieval.

3.1.2. Offline Operation

This system aims to offer those data stored on magnetic tapes such entries as printed cards (Please see Figure 9), labels, proof sheets, CCCII-converted Chinese character set, ISO-2709-converted forms and rebuilt output index files.

3.1.3. Parameters Made for Display

This system provides some display functions for parameters such as selected printed card, selected unprinted fields, selected card prints based on tag 805, selected printed book

sequences, output file methods and display modes formats. All these are subject to change according to actual requirements.

3.2. Periodical Literature Index CD-ROM

There are three main functions in this system:

3.2.1. Online Operation

This system offers services for online searching and printing in the following eight categories: searching records, returning to instruction manuals, revising current records, online original cataloging, storing available records, retrieving (deleting) records on magnetic tapes, showing current records, and printing data. The data obtained from the searching may be stored on magnetic tapes by download and then be retrieved, revised, increased or deleted again so as to meet the requirements of various publishers.

Entries for searching include eight categories: system identifier, titles, individual authors, corporate bodies, subject headings, book reviews, special articles collections and classifiers. Of these entries, titles, individual authors corporate bodies, subject headings, book reviews, special articles collections and classification number can be retrieved both in the Chinese and foreign languages. Restrictions are possible with the inclusion of special data and the month as well as the year of publication.

By special data are meant those data related with Mainland China and Soviet Russia while the published month and year can be restrictively shown with the number of the period of time (such as 7302-7401), the date before a certain month and year (like 0000-7705) and the data after a certain month and year (like 7601-). For uncertain searching requirements each searching makes partial match to check from the right margin backward. If the retrieval scope has to be narrowed down it can be done by keying in more than two retrieval entries connected with "and".

The results of the searching are shown on the screen item by item in a list including the total entries that match with the requirements. for each article there are sequential number, system identifier, title, author and other precise data for reference. (Please see Figure 10). If details of an entry are expected they may be shown on the screen through the bibliographic format or complete MARC format according to the forms of parameters and can be cut and transferred at any time for reference. And the results can be printed online or stored on magnetic tapes at any time on the basis of different requirements. For data on magnetic tapes the said system also makes functional performances as retrieval, revision, online original cataloging and deletion and provides 24

convenient function keys to facilitate input operations (Please see Figure 11).

3.2.2. Offline Operation

With a view to saving manpower and the time to wait for the processing so as to make the said CD-ROM more economically efficient in retrieval, special offline functional operations at off-peak hours are made for the printing, transforming and rebuilding index files of data in massive quantity. There are five entries for such offline operation: printed bibliographies, printed proofsheets, transformed CCCII character sets,[6] ISO 2709-converted forms and rebuilt output index files. Among these entries the rebuilt output index files aim at maintaining the index files on magnetic tapes so as to avoid the low efficiency as a result of the longtime addition and deletion of the magnetic disk file system.

3.2.3. Parameters Made for Display

(1). There are three choices for output file methods.

(2). The display mode may be shown with a general from or a complete MARC format.

(3). The printed bibliographic entry may have three alternate sequences of titles, authors and classification numbers.

(4). In source fields parameters should be made for display for original cataloging by the National Central Library or other libraries. With the functions of parameters made for display, the system will be more flexible and convenient for the processing of various required entries (Please see Figure 12).

4. Characteristics of the Pilot System [7]

The said system is tentatively worked out for trial but is surely possessed with the following characteristics:

4.1. Multiple Retrieval Functions

Retrieval can be made for five categories in published books and eight kinds and 14 entries for periodical articles. Searching is applicable to general books and periodicals as well as articles, book reviews can be searched from the titles of reviewed books, while special issues of periodicals can be searched from their titles. There are services for searching of the single entry and Boolean logic searching of several entries. For those definite date the required relevant information may be searched out through the search key for them while those indefinite data may be searched out by means of partial match retrieval. Considerably careful and satisfactory arrangements for information searching have been made for readers. The design of the screen used for searching is simple and the

methods are easy to be understood and applied by readers.

4.2. Flexible Printing Functions

This system is used not only for online immediate printing but also for selected offline printing of data in large quantity. The printing forms are selectable and the printing sequence may be arranged at users' will so as to meet their actual requirements.

4.3. Editorial Functions

Generally speaking, the data on optical disks of CD-ROM ar not changeable and revisable. But in this system it is possible to search, re-edit, revise and delete the data on magnetic disks by the use of the index system that is worked out by means of "B+-tree" so that articles required by various libraries based on their necessity can be edited or searched. The keys for revision have been designed to cope with the requirements for edition in the most feasible way so as to save the time and energy of output operators.

5. Utilization and Promotion of the System

The said pilot system as a whole can be regarded as successful but in some details there still leaves much room for improvement. Some defects are found in the design of the system format, but after discussions with the system programmer, the system will be formally made public with a more satisfactory operation. As to the inadequacy of Chinese computer characters the concerned computer people have taken the response and will take this problem into consideration in their development of the Chinese computers. On the part of the National Central Library further efforts will be made with more devoted manpower and budgets by recooperating with the Mechanical Science Laboratory of the Institute of Technology Research on Industry for making a greater stride into a new stage. It is expected that the new products will be made available to the public in all fields one year later.

As to the characteristics of the said new product in application they can be described as follows:

5.1. There will be more bibliographic records and a broader scope

Since the bibliographic database and the periodical articles index database in the National Central Library Automated Information Service (NCLAIS) rank highest in the rate of utilization by readers but are not entirely identical in their functions, a primary resolution has been made that the Chinese bibliographic disks and the periodical literature index disks will be publicized respectively. It is expected that the Chinese CD-ROM disks will cover about 140,000 entries that have been input on NCL's database from 1981 to

April 1989 while the disks of periodicals literature will contain 140,000 articles published in domestic periodicals from March 1983 to March 1989.

5.2. Chinese characters will be increased and the character set internationally standardized

The number of characters used in CCCII has been increased from 12,000 to 50,000 in order to meet users' requirements and facilitate Chinese information exchange.

5.3. The system will be made more approachable and easy for searching

The system will be operated in a menu-driven way. For information searching there will be browsing over titles, authors, subject headings, classification numbers/ classifiers and classifiers/ classification numbers. Readers will also be provided with users manual that includes instructions for operation and examples of effective searching strategies.

Like bibliographic database networks in other parts of the world, the National Bibliographic Utility of the National Central Library will offer CD-ROM services so that catalogers at various libraries can more flexibly and freely select cataloging resources. The more attractive characteristic is that the bibliographic database on CD-ROM has greater potentials for the conversion of retrospective bibliographies.[8] These will be very helpful to the acquisition and reference services rendered by various libraries.

6. Conclusion

During the past years CD-ROM database has been rapidly developed in Taiwan Area either through the introduction of such databases from abroad or domestic production and it has promoted the implementation of library automation system with a very prosperous progress and achievement. Consequently CD-ROM has gradually become an essential facility for the library automation projects. Moreover, information retrieval services are gradually rendered through the CD-ROM database rather than the online database.

The National Central Library has taken the initiative to develop the CD-ROM to meet the information retrieval requirements and the actual necessities in operation at various libraries. But it does not mean that CD-ROM service has replaced the online information retrieval. The development of the Chinese MARC Database on CD-ROM is really an initiative breakthrough in the history of the bibliographic development in the Republic of China. It has become an indispensable part of the integrated bibliographic networks projects on the part of the National Central Library and will be a complementary product by NCL for the development of the national bibliographic networks.

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IFLA GENERAL CONFERENCE AND COUNCIL MEETING PARIS 1989

Division: BIBLIOTHEQUES SPECIALISEES

Section/RT: BIBLIOTHEQUES DE GEOGRAPHIE ET CARTOTHEQUES

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ARCHIVING AND DISTRIBUTING AERIAL PHOTOGRAPHY AND SPACE IMAGES

- THE PHOTOTHEQUE AT THE IGN (F), FRANCE

---

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1°) LEGAL BASIS

Problems relevant to archiving and disseminating aerial photographs, mainly taken for producing and updating basic map products of a country as well its topographic series, arise immediatly from the large amount of data which are involved.

When considering the need for those problems to be solved over a long period in the public's best interests, one soon concludes that the establishment of a dedicated Office, in charge of all those matters is required.

Because of governmental involvment in managing such an office which implies a notion of public utility, nothing can really be done without first setting up the relevant legal basis. The IGN (F) needs not to be considered as the only example in the world, since similar offices actually exist in many other countries ; however what has been done at the IGN (F) will be described here in more detail, in order to better explain the approach which led logically to the establishment of the Photothèque nationale (National Photo-library).

The origin of the collection of aerial photographs goes back to 1941, to the earliest days of the French Institut Geographique National (IGN (F)). Then, at the end of World War II, this photo-library was created by a decree of the Provisional Government of the French Republic, on 29 May 1946, which established a Center of Information for Aerial Photography ("Centre de Documentation de photographies aériennes").

This Center is responsible for collecting all the aerial photographs taken by state-owned agencies or at their request, of the mother country and its overseas territories.

The Center is in charge of classifying and storing those photographs and making copies of them available to government departments. The goal is to prevent any overlap and to reduce as much as possible the time required for distributing such valuable products.

In 1978, space images from the LANDSAT satellite were provided to this Center of information for copying and distribution purposes, and were added to its holdings.

In 1986, considering the development of advanced techniques, the French Government extented the objectives of this Center and it is now responsible for collecting not only aerial photographs but also images suitable for mapping purposes, acquired by aerial surveys with all kinds of sensors, photographic or not, as well as "pre-processed image data, recorded from space over the country, undertaken at the request of public utilities or intended for them, by Earth-observation satellites having a ground resolution better than 100 meters, whether those satellites are French or not".

A special agreement was signed with the SPOT-Image private company, responsible for commercially distributing SPOT data, in order that the Center can acquire, as soon as possible, SPOT images recorded over the French territory. According to this memorandum of understanding which is valid for two years and can be renewed, the IGN (F) is entitled to use, distribute and store SPOT data of France, without having exclusive rights.

This IGN (F) center of information for aerial photography was officially given the name of "Photothèque Nationale" (National Photo-Library) by a new government decree, dated 8 February 1986, assigning those extended responsibilities.

The legal obligation to deposit aerial data applies to surveys covering more than 10 km^2 or consisting of more than 50 photographs ; groups concerned are state-owned agencies and authorities, as well as regional, county or local authorities which order such surveys, to be undertaken by themselves or otherwise, or which acquire pre-processed space images.

They are given a six-month delay for sending either original documents or copies of them to the Photothèque.

An exception is made for surveys exclusively intended for

military purposes, carried out by the Ministry of Defence, or on its behalf.

The Photothèque is officially responsible for putting the information at the disposal of the general public and printing at its request the copies, enlargements, rectifications or mosaics required. The IGN (F) is responsible for managing the Photothèque Nationale, on regular mission basis.

It is clearly stated that aerial coverage and space imagery over a country form part of the regular production of the relevant official cartographic agency, and belong to the basis geographic equipment of that territory.

This mission was extended to storing and disseminating those data as well.

Those conditions are now fulfilled and will allow the Photothèque nationale to fully succeed in its mission, henceforth enlarged to space data monitoring, and will result in the creation of an especially rich, complete and growing collection of data, covering the entire French territory.

2°) AVAILABLE PHOTOGRAPHS AND IMAGES

Operating a national photo-library is a mission soon justified by the wealth of products to be archived. As regards the French position, its territory and many other French-speaking countries have have been covered by aerial surveys once or several times, at scales ranging from 1 : 1 000 to 1 : 100 000 and for over sixty years.

The oldest photographs which the Photothèque nationale holds, date back to the last century.

They were taken by Nadar, from his balloon, as long as about

1886.

However, it was only after World War I that one began to see the commencement of what was afterwards the major epoch for aerial photography, which still continues to day.

Some milestones can be seen in that development.

In 1919, advances in flying and photographic techniques aided those in aerial surveying. The Military authorities, followed by private companies and land surveyors, began to use that product, without equal for discovering and portraying the ground "seen from above". The IGN (F) Photothèque holds material from that early period.

In 1939, the "Service Géographique de l'Armée" understook a systematic aerial coverage of the French territory.

Since 1945, the IGN (F) normally takes stereoscopic aerial photographs, corresponding to a complete renewal every fifth year, on the average.

Over slowly-developing areas, that renewal is reduced to ten years, but over rapidly-changing areas, it can be as often as every three years.

At present, nearly four million aerial photographs and six million derived products (copies, paper prints, etc.) have been stored, indexed and are accessible at any time, via both geographic and chronological entries.

The volume of data stored is increasing each year by about sixty thousand new pictures, taken at different scales, and by relevant by-products, resulting from the annual programs established under the sponsorship of the "Comité Central des Travaux Géographiques", or, since 1986, by the "Conseil National de l'Information Géographique" (National Council for Geographic Information), which replaced it.

As an example, in 1985 the IGN (F) Aerial Surveys Department

took 56 500 pictures, consisting of 52 430 over the metropolitan area and 4 120 over the French overseas territories (New-Caledonia, St. Pierre et Miquelon).

In 1986, 58 388 aerial pictures were taken over the French metropolitan area. At these rates, each point on the French territory has now been covered by at least 3, very often 4 or 5, recent aerial surveys at time intervals which are suitable for detecting changes and major trends.

Among those 4 million aerial photographs, there are about forty thousand oblique views taken without stereoscopic overlap over special sites such as towns, monuments, works of art, communication lines, etc.

The frames generally have a 19 x 19 cm format if taken before 1960 and 24 x 24 cm afterwards. Some glass plates used previously to films, first had 13 x 18 cm, then 18 x 18 cm formats ; they are stored in a similar way.

The most frequent scales are as follows :

a) 1 : 15 000 scale, on panchromatic film generally doubled on black-and-white or color infra-red film, intended for compiling the National Forest Inventory. They are repeated on a 10 year cycle. Similar aerial surveys are generally used for urban areas ; they are designed for standard large-scale stereoplotting and produce line maps at the 1 : 5 000 scale.

b) 1 : 20 000 scale, on panchromatic film doubled on B-W infra-red film, used for coastline surveys stretching over a 5 500 km long by 10 km wide strip (inland for 5 km), intended for the Permanent Inventory of the Littoral. They are repeated every 5 years. Other new surveys are now available on B-W or true colour film, covering the entire area of some "départements" (counties), as well as long-focal-length photographs (610 mm, i-e 24 inches) on panchromatic doubled with true colour film, taken over urban settlements. They require very clear weather conditions, due to the 11 000 m flight-altitude, but are much apprecia-

ted. The trend is therefore to lower the flight-altitude and to increase the survey-scale to 1 : 15 000, or even 1 : 10 000 over cities.

c) 1 : 30 000 scale, for standard panchromatic surveys intended for producing and revising the French topographic base map at the 1 : 25 000-scale.

Those photographs amount to nearly 50 % the annual number of pictures taken over France and correspond to two-thirds od the area covered. The current trend is to obtain 80 % forward-stereoscopic-overlap in order to facilitate later processing (the even-numbered pictures being used for printing and distributing copies, the odd ones for targetting ("pugging") and stereoplotting.)

d) 1 : 60 000 scale covering the southern part of France (latitudes less than 52 grads), on panchromatic and/or color infra-red film, but it is far from being systematically renewed.

*****

With regard to space imagery, the Photothèque holds 2 304 Landsat images, recorded over France between 1975 and 1983, along with some photographs taken over France with the Metric Camera during the First Spacelab Experiment managed by the European Space Agency in December 1983.

Currently the SPOT satellite is steadily increasing the Photo thèque' collections by images with 10 m ground resolution in the Panchromatic mode and 20 m in the multispectral mode. By March 1987, 130 films from SPOT data had already been deposited in the Photothèque. Space imagery is stored in analog form in the Photothèque. As a rule, no magnetic tapes are stored there for the moment. Images from Landsat MSS (Multispectral Scanner) are provided on black-and-white films at the 1 : 100 000 scale.

The French SPOT-Image company, together with the Swedish Satimage company are basically involved in storing in digital format some 300 000 SPOT images, recorded all over the world, as a result of the first 18 months of observations.

Considering the additional SPOT data collected by the two canadian receiving stations, the total amount of data available reaches about 470 000 images, one third consisting of the Panchromatic mode, the other two thirds of the Multispectral mode, 25 % of the whole being cloud-free or nearly cloud-free (less than 10 % cloud cover).

SPOT images stored at the IGN (F) primarily consist of film prints at 1 : 400 000, after level 1 and 2 rectification. All the satellite images are at the disposal of the general public for consultation and scrutiny, regardless of the origin of the data. However, the loan of space products is not possible, but copies can be purchased according to a scale of charges fixed by SPOT-Image.

Answering enquiries will soon be possible and potential users will become fully aware of the type and quality of SPOT images stored onsite at the Photothèque and available without delay and of others acquired by SPOT-Image.

Moreover, IGN regional agencies will be provided with a set of SPOT images, in the same way as they now have paper prints of aerial photographs covering the areas for which they are responsible. Aerial surveys are indexed with a reference system based on the 1 : 50 000 scale map, over which indexes are superimposed for each survey. These products are also available on microcards.

This simple indexing makes it possible to retrieve pre-prints of the photographs requested for inspection in a few minutes, which is very rapid considering the amount of data stored.

Existing catalogues will be digitized, by recording the ground coverage and all the other specifications including the purposes of the surveys. Moreover, the position of each frame center will be recorded for new surveys.

The files thus obtained will be easy to copy and disseminate in different parts of the country for consultation, especially in the IGN (F) regional agencies. Such duplicates will also be made for security purposes as well, the general catalogues only being available in a

single copy at present. Collection of those data is expected to be completed within 5 years.

The catalogue will then be transferred to a central master computer, for the purpose of satisfying international then external queries from the general public as well, through a service center, and perhaps through the new french Minitel telephonic system, which consists of a combined set, including a keyboard and a display unit.

3°) STAFF AND STORAGE FACILITIES

In addition to managerial staff and assistants, each photo-library should have at its disposal a team of full-time photographers and adequate laboratories for the relevant tasks.

This team should comprise very skilled and conscientious professionals, trained for carefully handling the original negatives, in order to minimize scratching of the film, to avoid finger-marks and stains, and to prevent further damage from possible nicks or tears.

Proper fixation or washing is a constant requirement.

Equipment should consist of automatic-processing machines for black-and-white films, along with electronic dodging printers and enlargers. Each photo-library needs connections with a network of associate laboratories, specialised in providing derived products requiring the use of rectifiers, orthoprojectors, photogrammetric stereo-plotters and automated flatbed plotters.

The storage conditions for original films should be checked at regular intervals.

Storage rooms should be maintained at not too high a temperature and free from excessive humidity, in order to prevent fungus growing on the emulsions ; on the other hand excessive dryness resulting in

brittle and curling films, should be avoided.

Underground dedicated archives areas are advisable but special precautions against fire have to be taken.

The oldest films, of historical interest, generally nitrate-base materials, should be stored in remote areas before being duplicated on to fire-proof film bases (preferably a polyester base).

A good way of keeping rolls is to store them in cylindrical cans, either metal or plastic ones, vertically-positioned in steel shelving units.

Rolls sliced into individual negatives should be stored flat, in boxes of about 60 to 70 pieces each, after being interested into envelopes made of plastic, polyester if possible, or polyethylene, may be P.V.C., materials.

Sets of paper-prints should be specially produced for consultation.

For instance, the collection of negatives and paper-prints of the IGN photo-library is located in a basement and its shelves stretch over more than 10 kilometers, cover an area of nearly 1 500 square meters and weigh over 500 tons.

The service is run by a staff of forty persons. The IGN photothèque is responsible for executing orders received at its own office and those from its main commercial center, 107 rue La Boétie, Paris, and from 18 other IGN regional agencies. In order to rationalize the equipment, the entire colour-processing and reproducing operations are performed in the laboratories of the IGN Aerial Surveys Department, at Creil (Oise), which are fitted with the following special equipment, dedicated to colour films and prints :

a) 3 Dodged contact printing machines, for rolled or sliced negatives

b) 1 Versamat-type film-processing machine, with 9 controlled

baths.

c) 2 Processing machines for paper prints ranging up to 120 x 120 cm formats

d) 4 Enlargers, up to 10 x and even 40 x enlargement ratios

e) 1 Rectifier, for coulour-controlled mosaics.

The concept according to which a photo-library should have its own equipment and facilities is confirmed everyday. It is the only way to satisfy in a reasonable time all kinds of customers, ranging from professionals to the general public, and to deliver high-quality products.

4°) USERS AND OUTPUT PRODUCTS

Users within a wide range of interests are concerned by geographic information and need a considerable number of different products, including basic topo-cadastral maps at very large scales and thematic inventories used for general land-use planning or managing local community facilities.

Aerial photographs and more generally aerospace imagery are considered as a primary source of geographic information ; their use goes far beyond the sole purpose of producing basis topographic maps and they participate in a wide range of tasks and studies of general or local interest, connected with a better inventory of natural resources land cover and habitation.

Repeating aerial surveys remains in practice the only way of pinpointing changes and they give rise to studies on their dynamics.

The wealth of information contained in those objective and up-to-date images, makes them appreciated by a wide range of customers who increasingly apply to the photo-library.

In this way, the IGN Photothèque has been able to set up a

file consisting of 50 000 clients, comprising technicians, permanent or occasional users, amongst whom are the following categories :

a) Experts in agriculture, forestry, soil science, managers of rural spaces, natural resources and environmental inventories

b) Urban and rural planners, decision makers, heads of sub-divisions or counties, civil engineering experts, road planners and designers of projects for other transport networks (electricity, high-speed railways, etc.)

c) Experts responsible for impact studies and site selection

d) Urban facility and local community offices

e) Locally-elected members or representatives from municipal councils

f) Experts in major natural hazards for mapping high-risk areas liable to landslides, avalanches, flooding or forest fires...

g) Professionals requesting maps to be produced generally at very-large scales

h) Photo-interpreters, photo-identifiers

i) Geologists, geomorphologists

k) Students or technicians wishing to demonstrate how a given site has evolved over a long period

l) Archaeologists

m) Individuals wishing to acquire an enlarged picture of their city or of their divelling or people taking legal action who need an enlargement of an old photograph as undeniable evidence of some feature having existed in the past.

The list of aerial-photography users is increasing every day and becoming more varied ; the Photothèque collections are continually increasing in value for the benefit of the national economy.

Most users, after consulting sets of pre-prints, are eager to acquire duplicates or more-or-less sophisticated derived products at short notice, for a wide range of purposes. This production function for which each photo-library is continuously responsible, should not be underestimated.

For example, the IGN Photothèque receives each year about

10 000 orders by mail and 5 000 by telephone. Its daily production amounts to about 500 contact prints and 60 enlargements at different formats. Those figures are only relevant to the turn-over for individual and occasional requirements involving retrievals from the store. Additional products are requested from new aerial surveys carried out for the main public establishments such as the National Forest Inventory, Permanent Inventory of the Littoral, or IGN (F). Merging all these activities, the total production of the IGN Photothèque in 1985 amounted to about 60 000 duplicates, 315 000 black-and-white enlargements and 12 000 colour prints. There was an increase in the number of true-colour enlargements produced in 1986.

Contact printing represents about 40 % of sales, partial enlargements to a medium format of 50 x 50 cm amount to the same proportion of 40 %, and full-size enlargements amount to 10 %. The remainder (about 10 %) consists of more sophisticated products (Assemblings, controlled mosaics, or orthophotographs). The requested products are generally delivered within less than 15 days, probably 10 days on the average.

5) CONCLUSIONS

The few examples given obove bear witness of the vivacity of aerial photography and how successful it is among is both professionnals and individual users.

Geographic imagery is a basic tool for obtaining and storing knowledge, building models of the environment and more generally, developing a country. Its status varies from one country to another. Restrictions often prevent a wide use of such valuable information. Yet the space aera, in which we have been living these past 30 years, should facilitate the development of cooperative links between countries are hardly noticeable, so making them less important.

An open-sky policy, on a non-discriminatory basis, giving rise to free access to space data, in a similar way as the one practi-

sed by the SPOT-Image Company and EDC from the early ages, is all the more welcome as it is currently extending. Moreover it should progressively lead to free-access for people in a given country, such as aerial photography, under the control, evidently, of their local or national authorities.

Users in each country learnt with great satisfaction that USSR had established a foreign trade enterprise, Soyuz-Karta, to make its aerial and space data available on a commercial basis (Doyle, 1987). The Soviets are offering to sell very high-resolution space photographs, up to 6 m ground resolution, therefore suitable for mapping at scales as large as 1 : 50 000 and tentatively 1 : 20 000. Two films should be alternatively proposed, the first one color or color infra-red film, the other one panchromatic film. After scanning with a 10 microns slit width, those data would be delivered in digital format.

So, restrictive practices fortunately appear to lose in importance.

Indeed it is time to share geographic information (Martinand, 1987), to cooperate, starting with exchanges inside each country. The danger no longer arises from an excess of distributed data, but from its inverse. It is a risk to make no use, little use or untimely use of that irreplaceable treasure constituted by aerospace data.

Those data merge history into geography ; each unjustified lack of their use is a loss for the country of origin itself, hindering or slackening its development.

The elevent EARSEL General Assembly in May 1987, urged ESA and the EEC to give greater priority to developing techniques for analysing and disseminating the huge amount of remote sensing data now becoming available. Can we considerer the ESA decision to create a center specially for storing and processing future ERS-1 imaging radar data as its reply to EARSEL ? This ERS-1 data center will be located at Brest (F) and is planned to be operational by 1990.

Can similar progress to expected in the realm of aerial and

photogrammetric data, as a result of the way opened so wide by space and remote sensing systems ?

Everybody hopes that geographic information will progressively enjoy everywhere a similar status, since they also belong to national wealth along with other items which each country should be glad to display and make available, as they have done with other objects of value. Conversely, it is hoped that the geographic information collected from space-observation platforms by agencies controlling those systems, will be delivered to relevant countries without any major funding problem and that those countries will be able to take full advantage of the space images of their own territories.

Such a result would be a new and important milestone in the way to a better cooperation. A new way of thinking would evolve, all the more as those controlling agencies are first eager to collect space-multidate worldwide coverage in the purpose of making those data ready for sale, even before they are ordered by customers. A practice which is not at all currently used in aerial surveys, since none of those surveys is undertaken otherwise than on special request. Such an approach is likely to provide closer links between aerial and space systems, giving rise to similar procedures and ways of thinking about them ; it would result in similar management-procedures for the data collected by both systems with higher benefits for everyone.

A better balance has to be struck between such opposing notions and purposes as those of immediate commercial interest, military classification for security purposes and the social and public utility of geographic information.

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IFLA GENERAL CONFERENCE AND COUNCIL MEETING PARIS 1989

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THE FINANCING OF SPANISH MAP LIBRARIES

by

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D (11)

M. Galera (E). The financing of Spanish Map Libraries

This paper has been divided into two parts. The first one talks about the Map Library as a part of a higher institution. The second one talks about the financing of Spanish Map Libraries evaluating the budget assigned to their maintenance and promotion. We have choosen seven representative Map Libraries, three from Barcelona and four from Madrid, in order to find out their present situation and to study if they have a good policy or it is necessary to change some aspects about it.

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THE FINANCING OF SPANISH MAP LIBRARIES

1. The map library as a specialized centre

The IFLA organization includes map libraries within its special libraries section. Thus the aims of the work are: to show the present state of affaires in these centres, to make a current evaluation and to reach a few conclusions with regard to the future, taking into account both the special material which makes up a map library (cartographic documents) as well as the need for a complementary library. It must be remembered that the triple mission of such a centre, library, archive, records library, map library, newspaper library, etc. is to bring together appropriate material, preserve it and put it at the disposal of the public.

The support library for the map library must contain basically reference works which can be classified as general works, dictionnaries, encyclopedias, directories and specialized cartographic reference works. First of all there should be a good collection of historic and up to date atlases of different countries, although in principal with special reference to our own country. There should also be relevant bibliographies, catalogues, dictionnaries, repertories, etc. Other types of work may pertain to cartography, monographs about cartographers, general or more specialized studies.

The link between the map library and the library world is obvious and to this end we are meeting together now as specialzed librarians.

Nevertheless the relationship between the map library and the archive must be studied. The work **Manuel d'Archivistique. Théorie et pratique des Archives publiques en France** by the Association des archivistes français, Paris, 1970, considers the cartographic document together with the iconographic document, within the series of non textual documents (figurés) present in most archives, whether they be hand-written or printed documents.

There is also another aspect to bear in mind in this map library/archive relationship. The archive of a map library is formed, in the strictest sense of the word, from those documents which were necessary to draw up a

map or plan, for example, field books, later topographic calculations, minutes, sketches, etc. or for present-day cartography aerial photographs or computerized date on magnetic discs.

1.1 Centres which may contain a map library

Having now looked at the basic elements of map libraries we should point out that they are always linked to a higher organization which is usually the National library, the University library, the Official Survey, the Archive, or a museum. The relationaship of the map library with these large institutions depends upon their internal structure. Here is a brief description of each one of them.

The National Library

A library subsidised by the government of each country and put at its disposal. A type of institution to preserve books being an archive of the intellectual output printed in the country or relative to it as well as containing the most exhaustive bibliographies of foreign countries. They are more closely connected to research than the promotion of books for the public.

The Archive

This is one or more collections of documents, of whatever date, form or material support, collected naturally by a person or public or private institution accumulated during the process of time and kept in order to serve as witness or information for the person or institution which produces it, for the citizens or to serve as a historical source. The cartographic material in a traditional archive in some series finds that due to its special features it requires some type of illustration, often cartographic (a plan, a drawing or sketch). There is also the situation where in a centre there is a closed collection of cartographic material. In this case this material is considered as an archive.

The Official Survey

A governmental organization with the aim of producing and editing the basic official cartography on different scales according to territorial geographical characteristics. One of the base units is the scale 1:50.000. The need for a map library of this type is obvious. It feeds on its own production, able to be extended to the geographical institutes of other world countries.

Museum

A place where objects of different interest are exhibited with timetabled visits for the public. The very nature of some museums presupposes the presence of maps, plans or views of cities. Usually away from the exhibition areas there is a study area where it is possible to consult a large selection of these materials. The maritime and historical museums of every city are the most suitable for these areas additional to the main museum.

1.2. Higher Administration levels of a Map Library. The case of Spain.

Within the present administration of the Spanish state there are three levels: central administration, applying to all the state and which is the mainstay of this organization serves as a framework for the other administrations.

Then there is autonomous administration within an autunomous community. With the declaration of Spain as a "state of autonomies" in the 1978 constitution 17 autonomous communities were set up at an intermediate level between the central government and the local authorities. Each one enjoys certain powers invested in them by the central administration. Then there is local administration as carried out by the town hall within its local area. This organization which goes back a long way has its own powers which permit it certain privileges as its own legal entity.

Each of these three levels is able to organize libraries, archives, map libraries, etc. for which purpose we have in Spain different centres which are totally independent of each other. This does not imply that all types of cooperation can not take place amongst them (standardization of catalogue cri

teria, lending services, exchange of information, etc.).

1.3. Some examples of Spanish centres which have cartographic collections

From all the Spanish institutions which house map libraries we have chosen seven as an example of the different organizations combining the type of centre they belong to and the administration which finances them. Before we evaluate their budgets, we believe it is necessary to give a short presentation of their history and resources. They are the following: in Madrid, Biblioteca Nacional, Servicio Geográfico del Ejército, Museo Naval and Instituto Geográfico Nacional. In Barcelona, Biblioteca de Catalunya, Institut Municipal d'Història and Institut Cartogràfic de Catalunya.

BIBLIOTECA NACIONAL

Type of centre: National Library depending on central administration, Ministry of Culture. Based in Madrid it has its origins in the Royal Library founded by Philip V in 1711. From 1881 there appeared a section of maps and plans which was suppressed in 1892 when the library was moved to another building but it reappeared in 1945 finally consolidated.

Resources of the map section:

OLD MAPS:

It contains an important collection of old maps of Spain and America from the old Royal Library and from private libraries ammounting to some 5000 maps, 600 of which are manuscripts, and a lot of atlases from 15th to 18th c.

MODERN MAPS:

As it is the National library it possesses two copies of all the cartographic material published in Spain. At the present time there are more than 70000 sheets.

There is also a support library which contains a thousand books from before 1900 many of which are atlases from the 15th and 18th c. and more than 5000 ti-

tles refering to geography, astronomy, cartography, etc. Finally we should mention that since 1971 it has had in permanent stock the funds of the library of the Royal Geographic Society, some 5000 volumes and more than 8000 maps most of which date from the 19th c.

INSTITUTO GEOGRAFICO NACIONAL

Type of centre: Official Survey. The administration is central depending on the Ministry of Public Works and Town Planning. It was founded in 1870 with the aim of drawing up the National Topographic map 1:50.000 and the national atlases and to carry out the work of mapping different pieces of land for tax purposes. Over the last few yaers special attention has been paid to historic cartography. Its resources have increased in accordance with its budget. Its map library at present contains some 70.000 maps and 270 atlases.

SERVICIO GEOGRAFICO DEL EJERCITO

Type of centre: Official Survey. Central Administration. Ministry of Defence. In 1838 the War Map Deposit was founded to make and store maps and other documents necessary for directing campaigns and to conserve those which until then had been in the War Office and Secretariat. In 1901 it acquired the private collection of Dr. Rico y Sinobas (some 13.000 maps and plans and 200 atlases) as well as the collection of Colonel Coello (some 4700 maps and plans). It also increased its own map library resources with the productions of its staff and with those of the War Map Deposit. In 1939 it was given the present name of Geographic service of the Army, an entity which inherits its own map library along with the functions of the former map deposit. This is divided into 2 sections, historic and modern. The first section contains 25.770 maps and plans as well as 286 atlases some dating back to before this century. The modern section has a similar number of maps as well as the most reliable atlases.

MUSEO NAVAL

Type of centre: Museum. Central administration depending on Ministry of Defence. Founded in 1874, it began its map library in 1932 incorporating the resources of the Naval Hydrographic Reserve. It has an interesting collection of cartography generated by the different hydrographic commissions created between the 18th c. and the end of the 19th c. These resources originate from the hydrographic works organization set up in 1779 as an extension to the Hydrographic Reserve which has been operating since 177o. This collection has been available for consultation since 1932 in the Naval Museum's map library. It includes historical maritime cartography from America, the Phillipines, Europe and Spain dating from the 18th and 19th c.

BIBLIOTECA DE CATALUNYA

Type of centre: National Library. Autonomous administration. Directed by a consortium created to this end in which three official different organizations participate (the Generalitat de Catalunya, the Diputació de Barcelona and the Ajuntament de Barcelona) as well as the Institut d'Estudis Catalans. Each organization makes a difference financial contribution with the first two organizations providing most of the finance. In spite of representing it as being locally administrated we consider it autonomous because the range ot its functions falls clearly within the scope of the Autonomous Community. Open to the public in 1914, the Biblioteca de Catalunya is one of the most important works carried out by the Institut d'Estudis Catalans, which since its foundation in 1907 has been involved in organizing the library which recently has been named the Biblioteca Nacional de Catalunya. This centre has 5 special sections of which the section "Gravats, Estampes i Mapes" (engravings, prints and maps) was set up in 1923. The resources of this section are formed basically from private donations. Recently they have been increased with the collection of Mn. Ignasi Colomer who gave his maps to the Institute of Catalans Studies in 1975 putting them into the library. At

present the section consists of some 11.000 items including maps, plans and views mainly of Catalonia but also of the rest of Spain as well as an important collection of ancient atlases.

INSTITUT MUNICIPAL D'HISTORIA

Type of centre: Archive. Local administration. Barcelona Town hall. Inaugurated in 1922 it was the culmination of a series of measures dictated by the Town Hall from 1916 to preserve the town's historic documents. This archive which brings together all types of material in different sections has had since 1925 a graphic section which includes cartographic material. It also has a library, a newspaper library and a photography section. Since 1943 it has been officially known as the Institut Municipal d'Història. Its cartographic material is made up of some 6000 maps, plans and views mainly of Catalonia and Spain. It should also be pointed out that it also possesses a large collection of maps and plans of the city of Barcelona, many of which are originals, which makes this one of the most exhaustive collections of Barcelona urban cartography.

INSTITUT CARTOGRAFIC DE CATALUNYA

Type of centre: Official Survey. Autonomous administration. Generalitat de Catalunya. Departament de Política Territorial i Obres Públiques. It was created by law in 1982 as the official cartographic service of the Generalitat de Catalunya, the autonomous government of Catalonia. The work of the ICC consists of producing basic topographic cartography on scales 1:500 to 1:25.000 as well as thematic maps and maps drawn from satellite images. It also includes other tasks such as maintaining the geodetic network and the development of geographic information systems. In 1985 by decree the Cartoteca de Catalunya (CTC) was set up as a section of the ICC with the aim of gathering together, coordinating and studying as well as the production from the institute itself all types of cartographic documents both ancient and modern. The CTC has maps from all over the world but it places special emphasis on

those from Catalonia and the Spanish state concerning itself with technical aspects, diffusion and conservation. It is divided into 4 areas:

1. Cartography. There are three chronological sections:

   a) Ancient cartography. Maps previous 1875.

   b) Modern cartography. From 1875 to 1960. Includes all map production from the publication of the first sheet of the National Topographic Map of Spain, 1:50.000 (1875) to 1960.

   c) Contemporary cartography. Includes all Catalan and Spanish map production from 1960 and a large collection of topogaphic maps of other countries which is increasing all the time.

2. Library

This is made up of reference works, catalogues, repertories, etc. It also contains national and thematic atlases from different states as well as an incipient collection of ancient atlases and works of geographic and cartographic interest.

3. The Photographic archive

This brings together photos in different formats which reproduce maps and plans deposited in other institutions in Catalonia as well as in Spain and abroad. It also contains a large ammount of cartographic and bibliographic material stored on microfilms.

4. The Document archive

The CTC also possesses a store of documents most of them from private collections and conected with the world of geography, town planning, astronomy, etc.

II. Some exemples of financing map librariesin Spain

2.1. Summary of the data obtained

In order to obtain information on the financing of map libraries described

above a questionnaire was used. A questionnaire was sent out in which it was asked what percentage of the overall budget of the institution was assigned to the map library (the exact amounts are considered to be internal information). To obtain a wider point of reference it was also asked what percentage the institution's budget represented with regard to the administrative organization on which it depends. The answers were very unbalanced and above all imprecise. We have drawn up a results table which can be found at the end of this report.

2.2 Comments on the results

Using the data obtained we can see that most libraries do not have their own budget. This fact obviously does not imply that there is no investment in them but rather that they do not have a separate budget assigned to them before the year begins. This is because map libraries are part of a higher organization which covers them. So expenses such as personnel, upkeep, etc. are not considered as being specific to a map library but rather are included in the overall accounts. Terefore when we speak about the budget of a map library we are generally refering to a small part of its expenses which many times coincides with the acquisitions. In the table drawn up we reflect the data given to us by the various map libraries. The term, too small to calculate, has been suggested by the institutions themselves and in many cases budget figure from previous years are not known. We have to bear in mind that the budgets of administrative organizations upon which the institutions studied depend differ considerably amongst themselves. Not only is the budget of a town hall different from that of a ministry but there are also substantial differences amongst ministries. A certain percentage of the budget of the Ministry of Culture is not the same as the same percentage in the Ministry of Defence. Finally, the column which refers to the personnel fives us an idea of the importance of the map libraries with regard to number of peaople who are sent to work there. It is curious to note that in this section there are

no clear terms of action with regard to the type of centre or level of administration. Each institution follows its own criteria and the contrast between the personnel destined to each centre attracts one's attention and makes generalizations very difficult. The most obvious conclusion to draw from this is the lack of a specific budget for the map libraries as a result of their dependance upon a higher entity and the lack of well defined administrative models for these sections.

III. Conclusions

Within the Spanish state there has been over the last few years an improvement in the policies concerning libraries, archives, etc. which depend on public administration and therefore map libraries have been directly favoured. Although varying greatly amongst themwelves many centres have taken another look at the way their material is stored with regard to a modernization of their installations. They have begun to set up, though still in the design stage, modern systems of catalogueing confirmed internationally and in some cases computerization has been introduced.

The cost of this process is covered either by an overall project as is the case with the libraries or a special budget has been granted as is the case with the Instituto Geográfico Nacional, Madrid (IGN). The way new cartographic or bibliographic material enters the library continues in the traditional way, that is through public or private donations. The geographic institutes have their own publications and use exchanges. The national libraries have the legal deposit for all printed matter at their disposal. The most recently set up map libraries have at their disposal the most acquired material as they do not have historic resources. The map libraries of the geographic institutes receive preferential treatment due to their special status within the instituion. The same thing does not apply to the map libraries of archives and libraries due to the fact that as they are special sections they take second place in the overall policies especially when it is a question of compu terization of resources. The wide range of the centres does not mean that they are no interinstitutional agreements to carry out in common projects of

different kinds. Thus the Instituto Geográfico Nacional and the Institut Cartogràfic de Catalunya, amongst others, work out jointly the "Marc format for cartographic materials" and at the present time the Naval Museum and the Geographic Service of the Army are drawing up a computerized catalogue of the cartography of America.

In conclusion we can speak of a dynamism within the Spanish map libraries as a direct reflection of our investments in spite of not having an exclusive budget and being a part of a higher entity. Indirect financing reduces acquisitions but it also allows us to dispose of, at any moment, considerable economic support, equipment and services which would be hard to come by any other means.

This is a tendancy to allow map libraries to have their own budget without nevertheless altering their administrative dependance on the centre they are housed in. This policy both allows them to enjoy the advantages of belon ging to a large organization while at the same time gives them a certain freedom of action. To find a meeting point between the two channels of finan cing may be a solution in the not too distant future.

Montserrat Galera i Monegal
Head of the
Cartoteca de Catalunya

SOME DATA ON THE FINANCING

INSTITUCION	SECCION	HIGHER ADMINISTRATION	MAP LIBRARY BUDGET (1)					INSTITUTION BUDGET (2)					STAFF (3)
			85	86	87	88	89	85	86	87	88	89	
BIBLIOTECA NACIONAL	Sección de Mapas y Planos	MINISTERIO DE CULTURA					0,14					4,04	10
INSTITUTO GEOGRAFICO NACIONAL	Cartoteca	MINISTERIO DE OBRAS PUBLICAS Y URBANISMO	ip	ip	ip	ip (4)	ip				1,25	0,83	3
SERVICIO GEOGRAFICO DEL EJERCITO	Cartoteca	MINISTERIO DE DEFENSA	n	n	n	n	n	ip	ip	ip	ip	ip	9
MUSEO NAVAL	Cartoteca	MINISTERIO DE DEFENSA	n	n	n	n	n						2
BIBLIOTECA DE CATALUNYA	Secció de Gravats, Estampes i Mapes	CONSORCIO (5)	n	n	n	n	n			0,58 (5)	0,78 (6)	0,82 (6)	3
INSTITUT MUNICIPAL D'HISTORIA	Secció de Gràfics	AJUNTAMENT DE BARCELONA	n	n	n	n	n		0,7	0,7	0,7	0,7	2
INSTITUT CARTOGRAFIC DE CATALUNYA	Cartoteca de Catalunya	GENERALITAT DE CATALUNYA DPT. DE POLITICA TERRITORIAL I OBRES POBLIQUES	0,23	0,57	2,28	1,29	1,56	1,41	1,38	1,66	1,73	2,64	8

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NOTES ON THE FINANCE TABLE:

ip : too small to be calculated

n : doesn't have any

: spaces left blank indicate no information known.

1 : the map library budget has been calculated with regard to the institution and does not include the part refering to personnel.

2 : the institution's budget has been calculated with regard to the admin. it belongs to.

3 : in 1989.

4 : this year the map library of the Instituto Geográfico Nacional had an extra budget to draw up the Marc Format for cartographic material together with other institutions. As it was an extra project beyond the normal functions of the map library we have not included it in the ordinary budget.

5 : see the description of the consortium in the previous chapter.

6 : the percentage has been calculated from the average of the general budgets of the Departament de Cultura, Generalitat de Catalunya and the Diputació de Barcelona, these being the institutions which finance the library.

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TYPES OF CENTRE		AMINISTRATION LEVELS		
		central	autonomous	local
	NATIONAL LIBRARY	Biblioteca Nacional (Madrid)	Biblioteca de Catalunya (Barcelona)	
	OFFICIAL SURVEY	Instituto Geográfico Nacional (Madrid) Servicio Geográfico del Ejército (Madrid)	Institut Cartogràfic de Catalunya	
	MUSEUM	Museo Naval		
	ARCHIVE			Institut Municipal d'Història (Barcelona)

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THE ECONOMICS OF TOPOGRAPHIC MAPPING OF THE UNITED STATES

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THE ECONOMICS OF TOPOGRAPHIC MAPPING OF THE UNITED STATES

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ABSTRACT

The U.S. Geological Survey is responsible for the topographic mapping of the United States. The mapping community is on the brink of a significant revolution in mapping and spatial data handling. The conversion of graphic production to all digital operations is expensive and decisions on how much the Geological Survey should invest are being based on a primary mapping economic analysis requested by the Office of Management and Budget. The study involved interviews of 333 Federal, State, and local Government agencies and the private sector. These case studies were used to determine benefits that are accrued from the use of map information and to develop a cost/benefit model to determine optimal map data production capacity for the Geological Survey in the 1990's. The report summarizes the applications of topographic data by discipline and indicates that maximum benefits occur when 10,000 to 17,000 maps are revised each year, that the optimal revision cycle is 5 years, and that the aggregate net benefit between 1989-2000 averages approximately $70,000 per map and totals $4 billion. The analysis has shown conclusively that economic benefits of digital topographic map revision are significant and extend over a wide range of production levels.

Introduction

The United States Geological Survey was established in 1879 to conduct the systematic and scientific classification of the public lands.

Clarence King, the first director of the Survey, stated that the reason for this rigid scientific classification of the lands of the national domain was:

> "for the general information of the people of the country, and to produce a series of land maps which should show all those features upon which intelligent agriculturists, miners, engineers, and timbermen might hereafter base their operations and which would obviously be of the highest value to all students of the political economy and resources of the United States." [1]

Before this classification could begin, however, a consistent national topographic base had to be developed on which all other types of earth science data could be displayed. Thus the stage was set for the systematic topographic mapping of the country by the Geological Survey. It is also easy to conclude from these early statements that the intention of the U.S. Congress was to provide tax-supported mapping to aid national economic development as well as scientific studies.

Today, the mapping community is at the brink of a significant revolution in mapping and spatial data handling. We are beginning to convert our graphic mapping production to an all digital operation, and in the future, instead of managing large collections of paper products, we will be managing even larger digital cartographic data bases and manipulating these data within geographic information systems (GIS).

This conversion is going to be costly in terms of hardware, software, training, and data distribution. Consequently, financial managers are asking questions such as:

Why is your agency making maps?

How cost effective will the new production processes be?

What will the benefits be from this type of mapping?

Primary Mapping Economic Analysis

The U.S. Geological Survey's National Mapping Division will complete its once-over, primary-scale topographic coverage of the country in 1990. The primary scales are 1:24,000 for the 48 conterminous states and Hawaii and 1:63,360 for Alaska. This effort will result in the production of over 57,000 quadrangle maps which will have to be maintained and periodically revised. It is estimated that it would take 50 years and over $2 billion to replicate this initial effort.

To determine how much the Geological Survey should invest in digital technology, the Office of Management and Budget asked the Survey to conduct a primary mapping economic analysis to quantify, in selected case studies, the benefits that are accrued from the use of map information and to develop a cost/benefit model to determine the optimal map data production capacity for the Geological Survey in the 1990's. It was believed that once you could maximize the benefits to the public in terms of providing timely map data, you could calculate what new digital equipment would be needed to generate the products to meet those needs.

The methodology for the analysis involved conducting 333 interviews with Federal, State and local government agencies and the private sector, and collecting the information on map and digital data needs according to the following categories: (1) agriculture, (2) commerce and economic development, (3) defense, law enforcement, and emergency preparedness, (4) energy and minerals management, (5) environmental protection, (6) fish and wildlife management, (7) forestry, 8) geological surveys, (9) land management, (10) library and academic research, (11) parks and recreation, (12) soils, (13) taxation and revenue, (14) transportation, (15) urban and regional planning, and (16) water resources. Once the data were organized into these categories, a profile of the organization and matrices were developed showing applications within functional categories, revision requirements, uses of digital data, and user response

to out-of-date map information. Table I is a summary of the major economic uses of topographic maps for each of the identified categories.[2]

The findings and conclusions of the first phase of the primary mapping economic analysis, dated September 1987, are as follows:

I. Use of Geological Survey primary topographic map information is pervasive in government and industry.

   A. At least 12 Federal organizations require complete nationwide coverage.

   B. Over 72 percent of the 267 interviews with State agencies indicate that they require statewide coverage.

   C. Uses cover such a wide spectrum that no single application stands out as most common or most important.

   D. Over 100 distinct applications were identified in the 16 general categories.

II. Use of digital cartographic data is widespread and is expanding dramatically.

   A. Over 35 percent of the organizations interviewed stated that they are currently using digital data, and an additional 49 percent plan to use this type of data in the future.

   B. Because the Geological Survey has not kept pace with the demand for digital data, many have had to obtain data from other sources to support their mission.

   C. Much of the data being used is digitized from Geological Survey maps, thus duplicating efforts at both the Federal and local levels.

III. Timely revisions are essential for almost all applications that use primary map information.

   A. Two principal variables influence the requirements for revision:

Table 1

Examples of Applications of U.S. Geological Survey Primary Maps

Agriculture

- Use topographic and planimetric data for analyses on--effect of pesticides on water supplies; assess value of agricultural land being considered for other uses
- Identification of farmland with erosion potential
- Base for plotting thematic data, such as land ownership, climatic data, agricultural natural disasters, and land use

Environmental Protection

- Locate, inventory, and plan the cleanup of hazardous waste sites
- Measure watersheds and analyze stream network to estimate paths and rates of contaminant flow
- Evaluate impact of requests for permits to store waste, dredge streams, or construct erosion control structures

Commerce and Economic Development

- Analyze sites for proposed development
- Route planning for power transmission and sewage lines. Also site evaluation for hydroelectric and nuclear projects
- Using linear map data, such as roads and hydrography to establish boundaries, allowing for the gathering of census information

Fish and Wildlife Management

- Base for adding wildlife management themes, such as habitat types and species for administrative purposes
- Determining carrying capacity of streams and lakes for fishes and aquatic animals
- Evaluating the impact of drift from aerial spraying of pesticides

Defense, Law Enforcement, and Emergency Preparedness

- Planning evacuation routes, search and rescue operations, and damage assessments
- Communication reference for various authorities with emergency preparedness, mitigation, and response responsibilities
- Base map for various derivative mapping projects, such as flood control mapping, flood insurance mapping, and preparing smaller scale maps

Energy and Minerals Management

- Base for thematic data, such as locations of oil wells, geologic hazards, and mine shafts
- Conducting environmental impact assessments of energy and mineral development
- Geographic reference for evaluating permit applications

Table 1

Examples of Applications of U.S. Geological Survey Primary Maps (Continued)

Forestry • Base for adding silvicultural themes, such as species and cutting practices, and for site assessment • Planning market strategy in timber sales, using map information to establish cutting blocks and sale boundaries • Estimating type, amount, and location of combustible forest materials for planning fire control measures and conducting fire control operations	**Library and Academic Research** • Planning regional and market development strategies, and conducting historical studies • Map repository for general community use and community activities • Teaching resource and base map for presenting scientific information
Geological Surveys • Locating and assessing mineral resources • Plotting natural hazards, such as fault lines and landslides • Providing a base for the compilation and presentation of data in basic geological studies	**Parks and Recreation** • Locating, plotting, and planning preservation of historical and archeological sites • Developing strategies to impede illegal use of park lands and resources • Reference for developing master plans for parks
Land Management • Geographic reference for planning the leasing of renewable and nonrenewable resources • Base map for recording and planning land acquisitions, sales, and exchanges • Using slope and elevation data for reclamation planning and permit issuance	**Soils** • Planning conservation practices and technical assistance using slope and hydrography data • Base to present results of detailed soil surveys • Delineating and measuring watershed areas for flood control and water supply uses

Table 1

Examples of Applications of U.S. Geological Survey Primary Maps (Continued)

Taxation and Revenue	Urban and Regional Planning
• Base for tax district maps, identification of special tax districts, funds appraisals, and property lines • Measure acreage of agricultural lands to estimate productivity for tax purposes	• Identifying land use patterns to support developmental planning • Using primary maps as both a reference and as a medium on which to record demographic and economic study findings • Planning the development of coastal zones
Transportation	**Water Resources**
• Determining optimal route selection and design, based on constraints portrayed on primary maps, such as existing structures, cemeteries, and topography • Inventorying various road types conditions • Analyzing watersheds, wetlands, and streams to construct bridges and culverts	• Planning the monitoring of streams, making possible the prediction of stream behavior in terms of discharge, flooding, and erosional activity • Determining optimal reservoir locations using topographic data, such as contours and elevation • Locating wells and ground water sources to assess quantity and quality of water

1. The rate of change within a given geographic area.
2. The value of current map information to a specific application.

B. In urban areas experiencing rapid change, 75 percent of those interviewed stated that updated maps are required at least once every 5 years. Almost 25 percent said they needed them more often than every 5 years, while only 2.4 percent said that a cycle less than every 10 years would be sufficient.

C. In rural areas undergoing slower change, over 40 percent require revised maps at least once every 5 years. Over 75 percent said they required updates once every 10 years.

D. Coastal and wetland areas were repeatedly identified as areas needing updated coverage as often as every 2 to 3 years.

E. Applications that have direct impact on human safety require frequent map updates, even in areas with relatively slow change.

IV. Significant duplication of effort will occur if the Geological Survey is not able to meet user requirements for primary map revision.

A. Almost 50 percent of the organizations interviewed will independently collect selected map information required for revision if the Geological Survey does not keep its maps up to date.

B. Many of these revisions will be single purpose in nature, will not be done to consistent multipurpose standards, will seldom receive wide distribution, and, as a result, will have little or no value to other organizations.

The data from the first phase of the analysis was used in the second phase to estimate the benefits and costs of different revision cycles for each of the over 5,000 maps in a five-state sample. Benefits were calculated by determining the amount that map users would spend to independently update at least a portion of a map if current primary map information were not available. Costs included those associated with equipment capitalization and production of revised maps. Costs and benefits were determined for 20 different map revision cycles ranging from 1 to 2 years. The results were statistically extrapolated to the Nation.

The findings and conclusions from the second phase of the analysis indicate that:

A. Net benefits occur when 10,000-17,000 topographic maps are revised during a single year.

B. Benefits are maximized at a production level of 12,000 maps, or an average revision cycle of 5 years.

C. The aggregate net benefits between 1989-2000 average approximately $70,000 per map and total $4 billion.

D. At an estimated revision rate of 5,600 maps per year, net benefits will fall at an average of $20,000 per map or by approximately $1 billion for the entire Nation.

In summary, the analysis has shown conclusively that economic benefits of map revision are significant and extend over a wide range of production levels. It also indicates that net benefits will be much higher if, with modern digital processing equipment, the Geological Survey is able to revise more than its expected 5,600 maps per year.

The economics of topographic mapping also includes a revenue aspect to offset production costs. In the United States, the price of topographic maps is set to recover only the costs of reproduction, storage, and distribution. This pricing policy is based on the premise that a map is a public good that was produced by the government for a

mandated activity, regardless of whether there are any subsequent public sales or not. Consequently, one only needs to recover those costs associated with providing additional copies to the public. In addition, because the map is a government product, it can not be copyrighted, licensed, or patented.

Current annual Geological Survey map sales are approximately $8.5 million. While maps are sold at 16 Survey outlets, there are 3,400 commercial dealers who account for 50 percent of the public sales. A distribution consolidation and modernization program is also underway and when completed, an expanded marketing and sales effort will be launched to increase revenues.

Conclusions

Accurate, up-to-date topographic maps aid economic development, but manmade changes due to development generate a need for revised and current maps for a multitude of post-development socioeconomic needs. The benefits of the U.S. Geological Survey's National Mapping Program are so far-reaching that the agency is able to charge minimal fees for a product line that supports all segments of society both directly and indirectly.

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Division: Specialised Libraries

Section/RT: Biological and Medical Sciences Libraries

115-BIOL-1-E

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ADONIS : Between myth and reality
trial document supply using CD-ROM technology

by

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ABSTRACT

U. Korwitz (FRG). ADONIS - between myth and reality: trial document supply using CD-ROM technology

ADONIS is a trial document delivery service supplying 224 biomedical journals published 1987 and 1988 on CD-ROM.

The main objective of the trial is to find an alternative way of supplying articles using computer technology and mass storage devices instead of photocopying the paper issues.

The new technique should save money on the side of the libraries which could be shared with the publishers in the form of licence-fees to support their journal production.

One and a half year after the start of the trial report is given about the experiences in one of the test sites, the Central Library of Medicine, Cologne.

It turned out that a library can work with this new technology but a number of problems has to be solved: searching-times are too long, the rate of unavailability of the articles on disc is too high, the print-out quality should be improved and the kind of journals to be stored on CD-ROM should be selected more carefully.

Until now, ADONIS does not seem to be cost-effective and its technology is not reliable enough.

Nevertheless, technological developments could give ADONIS a real chance to replace the conventional photocopy processes in our libraries in the near future for the benefit of all: publishers, libraries and our customers.

ADONIS, greek Adonis, in classical mythology: a youth of remarkable beauty. Born out of a Myrrha-tree he grew up with Persephone. He spent a part of the year with Persephone, another part with Aphrodite whose lover he was and another part with Zeus, whose lover he obviously also was. He was killed by a boar when hunting.

ADONIS, in librarianship: an acronym for a trial document delivery service that supplies all articles from 224 biomedical journals published in 1987 and 1988.

ADONIS tries to find a solution for an old problem:

In the last years the discrepancy between quick and reliable information retrieval via the international databases and the slow, time consuming delay in document delivery has come more and more into mind. How useful is all the computer technology if you have to wait 1-2 months for the photocopy of an article you urgently need?

Several years ago, librarians believed that microfilming journals might be the way out of this dilemma. We now know that this new medium does not offer a quicker access and is expensive, too. Storing literature in full-text databases imposes other problems: halftones (photographies) and even mathematical or chemical formulas cannot be stored and reproduced - online access is very expensive, too.

Conditions changed when, some years ago, mass storage systems like videodiscs and CD-ROM came into use. Text passages and even photos could be digitalized and stored on discs.

By that it seemed possible to compile a PC-based computer system together with a CD-ROM drive and a laser printer in order to retrieve full text information on laser discs and to print it out in high quality.

The ADONIS project

I have not the time today to go into the history of the (two) ADONIS projects (see (5)-(7)) but would like to characterize the interested groups briefly.

On one hand, there are 10 major international publishers of important biomedical journals, on the other hand 12 test sites, mostly libraries as document supply centers.

The publishers have a particular interest in controlling the photocopy activity of libraries and library users. If ADONIS will be successfull they could impose a licence fee on every article printed out and this fee could support their journal publishing activities.

The libraries are looking for a replacement of the conventional time consuming magazine work and photocopy process. They are willing to cooperate with the publishers who on the other side recognized that such a project could not survive without the libraries.

The costs of the trial are shared by the publishers and - to a lesser extent - by the libraries. Additionally, the EEC made a financial contribution to the trial.

The two German test libraries are the Central Library of Medicine in Cologne and the Technical Information Library in Hannover. They were supported by a financial contribution of the Federal Ministry for Research and Technology. As all other test libraries they are bound by contract with ADONIS to process all orders for articles in ADONIS-journals by the workstation only but not to cancel any subscriptions for these periodicals. They also undertook the obligation to supply statistical data on the usage of the workstation quarterly and to prepare a cost-benefit analysis.

As the two German libraries belong to the so-called "core-libraries" they are not charged for licence-fees during the test which lasts until the end of 1989. All other ADONIS-users have to pay 3.75 Dutch Guilders per article printed out if all ADONIS-journals are subscribed and 7.50 Dutch Guilders if not from the 10.001st article printed out onward.
We are now in the second year of the project. What are our experiences until now? Is ADONIS a real alternative to substitute the conventional photocopy process? Is it cost-effective? Does it represent a rationalization measure for a library?
Before giving an answer on these questions as far as it is possible until now I would like to demonstrate the work with the system (Fig. 1-5).

General experiences

Fig. 6 shows some statistical figures which will be discussed in the following.

1. Selection of ADONIS-journals

As the figures on the table show, only 2,8% of the incoming orders could be fulfilled with the ADONIS workstation - all other orders concerned non-ADONIS journals or older issues.
Because of this ADONIS at the moment seems not to be suitable for a small or medium-sized library - highly demanded journals like "Lancet" or "New England Journal of Medicine" are not included in the ADONIS pool. The reason for this is the fact that the group of the ADONIS publishers does not include those publishers. Furthermore, the ADONIS publishers selecting their periodicals for the project integrated some

recently published new titles not knowing the future demand of these. In the future, it remains to be seen if ADONIS is so successfull that more publishers will join.

2. Working times

Until March 1989 the mean working time per order fulfilled at the ADONIS workstation exceeded the working time of the conventional process in the magazines by up to half a minute. Having installed a new software which speeded up the print process ADONIS is now faster than the magazine worker in the stacks. Nevertheless, the searching procedure consumes too much time. As the employee at the workstation cannot search and print-out simultaneously he or she has to wait for each search result. If the ADONIS article identifier instead of the bibliographical data could be entered the search procedure would last not more than 2 seconds. For this purpose this identifier must be accepted by all journal publishers and considered by the international databases. Then the searching times would drop enormously. A further rationalization measure could be achieved if the DOCMATCH project will be a success: using a second PC incoming online orders are chequed for ADONIS articles automatically. Having assigned the ADONIS article identifier to those a search in the ADONIS workstation is started by the computer itself and the print-out is initiated.

In this case there is no need for staying with the system. To avoid delays, two core libraries have acquired a juke-box which automates the print-out procedure by changing the CD by itself. However, the costs for such a juke-box are too hight (10.000 £).

3. Unavailability

The number of ADONIS orders which could not be satisfied by the system is surprisingly high. The reason for this is the time lag between the availability of the printed version and of the disc. We recorded an average time lag of 42 days to the disadvantage of ADONIS. If the publication process of the discs could be speeded up the rate of unavailability could fall below 5%. This would improve our service in a high extent.

4. Print-out quality / Comments of our users

The print-out quality of the text parts can be considered as good: the original articles are scanned with a resolution of 8 lines/mm. Some users however criticized the quality ("restless typeface") and demanded normal photocopies instead. On the other hand, the quality of photographs printed out was described as very good (resolution: 12 lines/mm) - no photocopier can keep up with the ADONIS system and its laser printer.

It will be difficult to improve the print out quality of the text parts for ADONIS. This would require to choose a higher resolution - consequently, the storage space per CD would decrease. At the moment 6.000 pages can be stored on one disc (compared to 100.000 pages type-written).

5. Storage space

Now that the scanning process for all issues of 224 ADONIS journals for the years 1987 and 1988 is finished we have 84 CD.

What would it mean to have a complete CD journal library?

A medium-sized university library needs about 1.500 biomedical journals

in stock and not only the latest 2 but the latest 10 years are highly demanded by its users. Projecting this a library would have 2.800 discs. No juke-box can handle so many discs, no employee would like to work with such a disc collection.

Costings

Even now, 1 year after the project started, we cannot give a final cost balance. Past experience has shown that we should wait until the end of the trial in order to judge on the reliability of the hardware components (will it be necessary to acquire a new workstation every two years?). On the software side there have been problems, too, which increased the costs.

Some cost trends can be observed:

- As mentioned before ADONIS is "working quicker" than the employee in the stacks. This can mean cost savings.
- Savings could be effected if all subscriptions to ADONIS journals in printed form were canceled: this would reduce the storage space immensely. On the other hand, several workstations have to be installed for the library users who want access to these journal issues.
- At the moment, the costs paid for the workstation, for hard- and software maintenance and for consumables (toner, etc) make ADONIS an expensive experiment compared to the conventional procedures at the photocopy maschines.

As each cost factor can change within months it is very difficult to give a final judgement.

The final control mechanism for the cost effectiveness of ADONIS however will be the licence fee which is imposed by the publishers:

ADONIS will never be a low-priced document supply system but only nearly as dear as the conventional process and technology.

The future of ADONIS

In these months the ADONIS board decides about the future of ADONIS.The current trial will be discontinued at the end of 1989. Will there be a third project? Will ADONIS survive then?

In my opinion, ADONIS could become a competitive document supply method for medium-sized and big libraries in the world.

The future of ADONIS will be deeply influenced by technological developments:

1. Introduction of unexpensive main frame computers suitable for ADONIS (the PC-system now used will not meet the future requirements anymore) with higher clock speeds (32 MHz or more).
2. Improvements in the software to speeden up searching and printing procedures including multi-tasking.
3. Development of new mass storage techniques with higher capacity than compact discs (better compression rates alone will not be sufficient) - will ADONIS return to video discs?
4. Automation of the searching process: incoming online-orders are directly channeled to the ADONIS system and the search is initiated automatically. Search results are not printed-out but - on demand - sent by telefax to the user.

   A condition for this scenario would be the acknowledgment ot the ADONIS article identifier.

The computer world is in steady motion - it is only a matter of months or years that these technological developments are part of our reality. On the other hand: what is to be invested on the side of the publishers

and on the side of the libraries? Are both sides ready for the future?

In a whole, I am sure that the conventional way of supplying documents via photocopiers will not be the only one in the future:
If its name is ADONIS or that of another Greek or Latin myth there will be a computer supported document supply system in our libraries in the future and our well known photocopier will be used for secretary work mainly.

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ADONIS NUMBER : ISSN NUMBER :

JOURNAL TITLE

YEAR :

AUTHOR(S) :

ARTICLE TITLE :

VOLUME : ISSUE : PAGE :

F1 Help F2 Abort F3 Search F10 Exit

Fig. 1 Search entry screen

ADONIS NUMBER : ISSN NUMBER :

JOURNAL TITLE
PARA

YEAR :

AUTHOR(S) :

ARTICLE TITLE :

VOLUME : ISSUE : PAGE :

F1 Help F2 Abort F3 Search F10 Exit

Fig. 2a Search entry screen- part of the journal title entered

SEARCH ADONIS Rev 1.4

PARASITOLOGY RESEARCH
COMPARATIVE BIOCHEMISTRY & PHYSIOLOGY - PART A: COMPARATIVE PHYSIOLOGY
JOURNAL OF COMPARATIVE PHYSIOLOGY A: SENSORY, NEURAL, AND BEHAVIORAL PHYSIOL
JOURNAL OF COMPARATIVE PHYSIOLOGY B: BIOCHEMICAL, SYSTEMIC, AND ENVIRONMENTA
COMPARATIVE BIOCHEMISTRY & PHYSIOLOGY - PART B: COMPARATIVE BIOCHEMISTRY
COMPARATIVE BIOCHEMISTRY & PHYSIOLOGY - PART C: COMPARATIVE PHARMACOLOGY AND
DEVELOPMENTAL AND COMPARATIVE IMMUNOLOGY

Current item : 1 of 7

F1 Help Arrow Keys to browse F4 Select F10 Exit

Fig. 2b List of search results displayed

SEARCH ADONIS Rev 1.4

ADONIS NUMBER : ISSN NUMBER : 0044-3255

JOURNAL TITLE
PARASITOLOGY RESEARCH

YEAR : 1987

AUTHOR(S) :

ARTICLE TITLE :

VOLUME : 73 ISSUE : 1 PAGE : 50

F1 Help F2 Abort F3 Search F10 Exit

Fig. 3 Search entry screen - journal title, publication year, volume, issue and page of the article entered

SEARCH ADONIS Rev 1.4

ADONIS NO: 0044325587000085 ISSN NO: 0044-3255

JOURNAL TITLE: PARASITOLOGY RESEARCH

AUTHOR(S): KOIE M.

ARTICLE TITLE: SCANNING ELECTRON MICROSCOPY OF REDIAE, CERCARIAE,

YEAR: 1987 VOLUME: 73 ISSUE: 1 PART:

PAGES: 50 TO: 56

NO. OF PAGES: 7 CDROM: 1

F1 Help F5 Print F6 Priority Print F7 Display F10 Exit

Fig. 4 Full bibliographical data of the article displayed after search procedure

SEARCH ADONIS Rev 1.4

REQUEST FORM NO :
USER CODE NO : H 1
USER NAME : Hans Hagemann
ORGANISATION :

USER ADDRESS.
LINE 1 : Welfengarten 1 B
LINE 2 : 3000 Hannover 1
LINE 3 :
LINE 4 :
LINE 5 :

DELIVERY ADDRESS.
LINE 1 : Welfengarten 1 B
LINE 2 : 3000 Hannover 1
LINE 3 :
LINE 4 :
LINE 5 :

rticle added to Print Queue
Hit carriage return to continue

	ADONIS			CONVENTIONAL		
	March	April	May	March	April	May
- Orders received per day	38,4	48,3	37,6	2.058	1.693	1.478
- Orders fulfilled (%)	89,9	87,4	86,7		87	
- Orders not fulfilled (%)	10,1	12,6	13,3		13	
Reasons (%):						
- ADONIS failure or scanning failures	1,2	0,8	0,5		--	
- Wrong informations on the order forms	0	1,0	2,1		2,0	
- Issues (articles) not yet available	8,9	10,8	10,7		2,7	
- Issue/volume in bindery	--	--	--		4,4	
- Miscellanous	--	--	--		3,9	
- Working time per order fulfilled (min)	4,4	3,3	3,5		3,6	

Fig. 6 The conventional working process and ADONIS in comparison (Figures effective for 1989)

Division: Special Libraries

Section/RT: Biological and Medical Sciences Libraries

139-BIOL-3-E

THE ECONOMIC IMPACT OF THE DOCUMENT DELIVERY ON SCIENTIFIC JOURNALS

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by

Marc WALCKIERS

Director of the Library of the Faculty of Medicine of the University of Louvain, Belgique

IR053252

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

M. WALCKIERS (B). The economic impact of the document delivery on scientific journals.

This paper describes the economic impact of new technologies on the life of scieitific journals : the article reproductions, the new possibilities offered by the computerised union catalogues, the teleordering of documents and the elctronic publishing decrease the local needs for journals subscriptions and the income of publishers.
In order to ensure the financial balance of the scientific journals, the author suggests :

1. the solution adopted by the partners of the Adonis experiment : the payment of royalties to the publisher for its copyright ;
2. a single and subtantial price for a self-supporting interlibrary document delivery.

Those suggestions could be helpful for the future of scientific journals and the efficiency of libraries as well as for the whole scientific community.

As it is pointed out by the theme of this Conference, the information has become a major economic issue, not only for the survival of Europe where raw materials are missing, but also for the whole post-industrial society.
Several authors produced wonderful books about this.
I would like to modestly propose a few reflexions about the economic impact of the transfer of biomedical information via several channels :

- the traditional channel of journals, well known since three centuries,
- the article reproductions which are booming since thirty years,
- the elctronic document delivery.

Since the publication of the Journal des Savants for the 17th century, the number of scientific journals increased wonderfully : 50.000 of them are currently received at the British Library in Boston-Spa only. This kind of transfer of scientific knowledge has been perfectly organised, with independant and selfsupported publishers, editorial board and referee selecting and improving the typescripts, a legislation protecting the authorship of the articles, libraries offering to scientists a range of scientific journals suitable to their needs and storing them for the next generations. Despite a slow down in the expansion of the scientific literature, the specialisation and the appearance of new fields of research cause continuously the birth of new journals more and more specialised.

This kind of transfer of scientific information seems to work smoothly since about three centuries, but it is more and more put at risk by several practical, technical and economic factors.

The Secondary literature

The choice of the articles of a journal issue always causes the interest of the reader, and a check of the contents is usually the first step of the scientific information.

This traditional approach has been partially replaced by the survey of the secondary literature. In the medical sector, I point out the Index Medicus published since more than one century, the Excerpta Medica since forty years, and a little later by the Bulletin Signalétique.

In addition, there are the Current Contents and other reproductions of contents which started 25 years ago.

Following the explosion of the scientific literature for the sixties and seventies, this secondary literature became more and more necessary and freed gradually the scientists from

using the journals themselves : the bibliographic data, a short description or an abstract of the articles are usually sufficient for guessing the interest of an article, and the reproductions of so selected articles often avoid to use the journals themselves.

The photocopies

Since thirty years, the photocopy has deeply modified the behaviour of scientists, administrative offices and everybody. The librarianship did not remain beside this trend and most of the libraries work with photocopy machines producing easily one million copies per year in the case of medium size libraries. Article reproductions are produced not only in each library for its own users, but also for the users of all other libraries where the article wanted is missing.
The problem is certainly not negligible, because one reproduces hundreds of thousands of articles of scientific journals every year in the main libraries in continental Europe and three million articles at the British Library in Boston-Spa only. At the international price, ten million article reproductions supplied annually between libraries in Western Europe give a total of 750 million French francs or 75 Sterling Pounds. And this is probably only the top of the iceberg, because this total does not include the local production of about 75.000 libraries counted in the 12 countries of the European Communities only.

Since 25 years, the article reproductions increased up to several million per year at the expense of the journal subscriptions, on insensibly at first, but on alarming way later, contributing to the rise of the journal subscriptions, to the subscription cancellations in libraries and to the dead of scientific specialised journals.
Thus, article reproductions have an important economic impact which is producing a worrying influence on the transfer of scientific information.

The legislation on the copyright

The legislation on the copyright dates from more than one century and has been mostly ignored by the libraries and their users who were more interested by an effective transfer of scientific information.
I have to point out however positive agreements, in France and Germany at least, about the copyright in libraies. However, it is strange to see there libraries paying royalties to the publishers of their own country for the reproductions of

articles published abroad.

This proves that a rational and international legislation on the copyright is really needed for the protection of the transfer of the scientific information which can not stop at any frontier.

The computerised bibliographic data

Since the seventies, the computerisation of the bibliographic data has greatly amplified the impact of the secondary literature on the scientists : the searches in bibliographic data bases is booming very successfully since 10 years in the medical and chemical sectors, and the turn over of the main hosts is surprisingly increasing.

Moeover, the success of the recent distribution of bibliographic data bases on compacts discs gives now to all scientists, students and everybody an attractive opportunity to do their own searches in self service, free of charge or nearly, with an efficiency very similar to the searches on-line.

The Current Contents and other contents reproductions have also found a version in machine readable form with the recent distribution of Current Contents on floppy discs used on microcomputers.

Thus, the computerisation of the secondary literature has greatly strengthen its impact on the readers of the scientific journals, and especially biomedical journals, and those new tools are freeing them more and more from the use of the paper editions.

The automation of libraries

The libraries have not ignored the progresses of the new technologies, and most of them have computerised their catalogues and created large national union catalogues of journals enhancing the demand of article reproduction between libraries and a common acquisition policy for journal cancellations mainly.

On the other hand, the "teleordering" of article reproductions is now very usual in Northern America and in Western Europe, and this is greatly enhancing the availability of reproductions of missing articles.

At least, the improvement of the quality of article reproductions sent by telefax and their increasing speed

facilitate the transmission of article reproductions from library to library, from city to city, from country to country and even from continent to continent.

All those wonderful progresses are very well accepted by most of the librarians who see there an means to improve the effectiveness of their services, but one should look at their impact on the whole transfer of the scientific information.

Traditional publishing and electronic publishing

The announcement of a paperless society does not seem to be confirmed very soon : despite the wonderful development of new technologies and the technical possibility to replace the traditional publishing, authors and readers stick to the journals in paper edition. Thus, one has to forecast and to hope a coexistence as smooth as possible of traditional publishing and electronic publishing, offering the same information on both ways.
In this case, the problem of publishers will be to compensate the reduction of library subscription by new income from document delivery on request.
This is already the case in the field of secondary literature, but nor yet for scientific journals in full text.

The financial problems

In the present state of information serevices, the readers find more and more easily the references of articles in bibliographic data bases and the article reproductions replace easily the journals missing in their library.
But the librarians have to cope with fixed budgets for the acquisition of more and more expensive journals and in addition new and increasing expenses for their automation and their telecommunications.

Moreover, scientists are increasingly using the main document supply centres and they find more and more inadequate the cost of their local library.

All those factors contribute to a decreasing number of subscriptions in libraries which are the main market of the publishers of scientific journals. The result is the rise of the prices of the subscriptions and the dead of specialised and less profit-earning journals.

The Adonis experiment

Facing this worrying situation, a group of European medical publishers had the excellent idea to launch a new experiment in cooperation with a few important libraries :

since 1987, the Adonis consortium is reproducing the current issues of 219 European medical journals with images and full text on weekly compact discs in order to enable a dozen of

libraries and document supply centres to reproduce them at lower cost and to pay part of this saving for the copyuright. If this interesting zexperience could be successful, one could hope very positive results for everybody :
- libraries could save staff,
- the joint acquisition of paper editions a,nd compact discs could save the binding and the space needed for old sets,
- the publishers could receive royalties for their copyright, and this could compensate journal cancellations,
- the end-users could receive a better service and
- better resources for scientific journals would benefit to everybody.

Thus, the Adonis experiment already aroused a great interest in the publishing and library worlds, and, anyway, it already encourage a very useful reflexion.

The librarians' choice

In the present trend, the progresses of technologies and the limited budgets of libraries cause a reduction of the number of subscriptions and the dead of part of them.
In order to avoid this very bad result for publishers, librarians and end-users, I do not see any other solution than the one accepted in the Adonis experiment : royalties to be paid to the publishers in order to compensate the reduction of the subscriptions instead of rising the prices of the subscriptions. Previously, it was impossible to count by publisher the article reproductions of each library, but now this could be done in computerised libraries and by the utilities used for teleordering those documents.
Of course, those royalties should be very small compared to the cost of the reproduction, and it should be included in the price of any article reproduction paid by the end-user.

Moreover, the libraries could use this opprtunity for asking their users to pay more realistic prices for this service. This could enable libraries to :
- use selfsupported staff for reproducing articles,
- receive additional revenue for their acquisition budget,
- have a relative financial autonomy improving the management of their services.

On the other hand, increased prices for article reproductions will lead those responsible for libraries and end-users to maintain a larger number of subscriptions, because of the increased cost of the reproductions they should buy in case of cancellation.

In the relations between libraries, it is not realistic to stick to free service or to very cheap fares compared with those of the international market.

In fact, realistic prices are necessary for improving the quality of the service, and in addition they will contribute to a wide geographic distribution of the article reproduction and of the journal acquisition, which is obviously better than the increasing concentration of the present document delivery services.

About this large problem of article reproduction, my personal conclusion is that realistic prices and royalties for the publisher copyright will be helpful to libraries, and to the whole scientific community.

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French art libraries and the new technologies of pictures

by

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IR053252

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French art libraries and the new technologies of pictures

In the realm of pictures, France has always been in the foreground. We are not only celebrating this year the bicentenary of the French Revolution. 1989 is also the 150th anniversary of the announcement of the invention of photography. In 1839 indeed, the State decided to buy the patent for Niepce and Daguerre's invention and offer it to mankind. We know what an extensive use was made of it. In France again, in 1895, the cinema was invented in the city of Lyons, in a workshop of what was to be the Rue du Premier film. The workshop can still be visited today, so can the magnificent residence of the inventors, the Lumière brothers, which now houses the Fondation nationale de la photographie.

This particular interest of France for pictures can still be traced today in the wide use many French libraries make of their photographic collections, as well as in the boom of the French technology of videodiscs, visual data retrieval software and remote transmissions. The State has played an essential part, above all through the channels of the Ministry of Culture. Since 1981 particular attention has been paid to the art of photography, motivated by two considerations : photography addresses a large audience ; it is closely linked with a fast-developping industry.

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The foundation of the Centre national de la photographie in the Palais de Tokyo (Avenue du Président Wilson) and that of the Ecole nationale de la photographie at Arles were significant in this respect. Some museums and libraries, such as the Orsay Museum, the Musée national d'art moderne, and the Bibliothèque nationale were able to display their photographic collections. The city of Paris too has taken determined steps in favour of photography: the old collections of the Carnavalet Museum, those of the Bibliothèque historique de la ville de Paris (Historical library of the City of Paris) were exhibited, the Mois de la photographie (photographic month) was organized as a biennal show. An exhibition hall was opened in the Forum des Halles. Here, we must particularly mention the remarkable vidéothèque de la Ville de Paris with its matchless equipment, a reference to any art librarian wanting to open an audiovisual section in public access. Finally, the multimedia libraries of the Cité des Sciences (Centre for Science and Industry) and of the Arab World Institute have made ample room for photographs and motion pictures stored in videotapes or videodiscs to be viewed by the general public on screens for individual use.

That this environment is very favourable to pictures can be seen from the important number of videodiscs published by cultural institutions, half of which are museums, the other half being libraries, to record their collections. At least

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fourty videodiscs can concern scholars and students in art history.

As soon as 1980, the Département des estampes et de la photographie (department of prints and photography) of the Bibliothèque nationale started systematically microfilming its collection. Up to now, two of the fifteen million items have been reproduced. The Bibliothèque Sainte-Geneviève (Place du Panthéon) did pioneer work when it developped an original sort of interactive research on a videodisc recording its collection of medieval illuminated manuscripts.

Today, the Bibliothèque Nationale is publishing a videodisc storing 30,000 pictures on the French Revolution. The Bibliothèque Publique d'Information has stored its whole collection of 136,000 transparencies on three videodiscs, one of which is entirely on the fine arts. Other institutions that have contacts with art libraries, such as the Musée des arts et traditions populaires (Museum of folk arts and traditions), the Musée de la mode et du costume have made a videodisc to record a part of their collections. The Board of university libraries (D.B.M.I.S.T.) went a long way in the same direction when it had two videodiscs made : one on archaeology, the other on the vellums of the Museum of Natural History. The Direction du livre et de la lecture, which is in charge of the French public libraries, backed financially the microfilming of the image collections of several major libraries, at Rheims, Rouen,

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Bordeaux, and other cities. Today, the French administration has been decentralised and decision-making is in the hands of the local authorities but it is worth noticing that the same policy still goes on in some regions, such as Rhône-Alpes, Alsace and Franche-Comté, where joint videodiscs were made for the collections of libraries and museums put together, or in cities such as Nîmes where new multi-media libraries were built or old ones modernized.

A wide choice of new document retrieval software adapted to image data-bases was marketed lately, which makes selection hard for librarians (2). The microcomputer industry has been highly creative. A few years ago, the Bibliothèque Sainte-Geneviève tested what was to become a documentary picture display software, designed to enable the student to work at his screen as if he had 50,000 transparencies at hand, that he could classify, compare, pile up, store or discard at will. Today the market offers five models of similar software!

In the same line, the exhibition "mémoires du futur" (memories of the future) held in the Bibliothèque Publique d'Information in 1987, showed a full-scale reading-room for picture research in a library of the future : From the same work station, the "reader" could access various picture collections, either on videodisc or on videotape, confront them, annotate them by means of a character generator, modify them with an electronic paint system, record and store them, assemble them, and even

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insert new pictures selected in books with a caption-stand. The whole device, that we shall call a picture sequencer, combined, on a desk that could be placed in just any library, all the facilities available to a student today. It foreshadowed the work station of our future art libraries where scholars and students will be able to access the image banks of all museums and carry out an original type of on-line work on pictures, in the same ways as we do today on terminals, with texts from data bases, with the help of a word processor.

To assess the advantages that art historians will derive from those new instruments we must bear in mind that they will be enhanced by the advance of picture telecommunications. Libraries won't have to buy all videodiscs for they will be able to access them on line and unload them on-site, selecting the right sequence. André Malraux's seminal idea of an imaginary museum, inspired by the new prospect opened up by the photographic reproduction of works of art, will be fulfilled : we shall be able to connect ourselves with all the museums that have stored their photographic materials on video- or digital discs. We know how hard it is today for picture librarians to classify, communicate and above all keep in good condition hundreds of thousands of transparencies. We can hope that this intricate problem will belong to the past when extensive data banks are accessed from servers, as begins to be the case in France. At the Bibliothèque Publique d'Information we are actively

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working in this direction and planning to provide remote access to our three encyclopaedic videodiscs.(3)

The new digital telecommunication network, called in France "Numéris" will cover our whole territory two years hence and is planned to cover gradually the whole of Europe. On high definition screens, it can channel excellent colour pictures. Hardly any private person can afford such an equipment, but it can be acquired by libraries, particularly art libraries that will be able to receive or transmit data to each other, and even work on separate sets selected by scholars from unlimited collections.

France has consequently outlined several projects to carry out the wide range of possibilities. The project of a great "picture library", providing access to art collections of various origins, stored on various media, is materializing. The Palais de Tokyo, which houses together the Centre national de la photographie, the exhibition facilities of the Mission photographique de la direction du patrimoine (old photographic collections stored outside Paris at the Fort de Saint-Cyr), and the F.E.M.I.S. (French school for filmmakers) is to receive the collections of the Cinémathèque française. They are currently contemplating organizing a library with special work stations to access picture data banks.

That is why the new major project of a French library (which is to modernize in a new building the contemporary part of

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the Bibliothèque Nationale) makes room for a large audiovisual sector combining collections and equipment that are already to be found here and there in France at an experimental stage. As matters stand, the project of an audiovisual department in the French library can only be an inventory of the various possibilities : image data banks on videodiscs, automatic video-libraries, picture processors, sequencers, remote data-access, etc., that will be available in the same place.

We must admit that the obstacle we shall have to overcome is legal, far more than technical or financial. In fact, as there is no appropriate legislation or society for its enforcement we have virtually no possibility of using this type of equipment in full respect of the copyright. In this juridical jungle, the problem of the reproduction of works of art is most difficult to solve, for we must take into consideration the rights of the photographer or publisher, those of the artist whose work has been reproduced, if it is coverable by patent, and, in all cases, the rights of the owners of the photographed monument or work of art.

If we have to keep our ambitions within bounds, it is not so much for technical as for social reasons. Other questions than the legal one will hamper an evolution that modern technology would tend to accelerate. Are we really prepared to make the most of the new prospects? Historians of art should be among the first concerned by this advance, but they are not particularly

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impatient to make use of it. History of art is not a wealthy market.The methods applied are not very dynamic : do historians really wish to work together in teleconferences, as businessmen, physicians or architects might wish to do? Do they really want to use the creative possibilities of those new tools that will enable them to modify, record, broadcast a picture, change its context, etc.? Librarians will have a central part to play in the training required to master the use of those new tools. They will, at least in the first phase, be the only experts apt to carry out this change. Their competence and their enthusiasm will be determinant assets.

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Division: Special Libraries

Section/RT: Section of Art Libraries
Round Table on Audio-Visual Media

29-ART /AVM-1-E

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PHOTOGRAPHIC COLLECTIONS IN JAPAN: ACCESSIBILITY AND NEW TECHNOLOGY

by

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Tokyo Metropolitan Central Library

IR053257

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Today I wish to present an overview of photographic collections in Japan.

First I shall talk about the recent evolution of these collections, then I shall deal with two major problems which they present, that is, the existing difficulty in accessing them and the impact of the application of new technologies. Finally, I shall support the view that it is necessary to appoint documentalists to ensure that collections are enriched and utilised.

There are many sides to photography; documentary, scientific, aesthetic etc.. This is expressed most clearly in the words of the American critic Susan Sontag: "To collect photographs is to collect the world". But we shall limit our discussion here to the problems which appear in the field of the social sciences.

We shall try to focus on the interface between photography and new technology. We are fortunate to be able to illustrate some paradoxical phases of modern culture in the "Kingdom of the camera".

1. Recent evolution of photographic collections in Japan

Although the practice of photography is very wide-spread in Japan, photographic collections have not yet become common.

The attractiveness of original photographic prints to art lovers is a rather recent phenomenon. At the institutional level, as far as exhibition and conservation are concerned, we have done without museums or specialist departments for a long time. But the campaign for the creation of a national museum of photography began in 1978. This campaign also provoked reactions in the public, local and even the private sectors. Thus the first museum, the semi-public Domon Ken Museum of Photography, was inaugurated in 1983.

Since then we have witnessed the birth of a series of museums devoted to photography such as the Maeda Shinzo and the Shirahata Shiro.

In the public sector, departments of photography in the municipal museums of Kawasaki and Yokohama opened in 1988 and 1989. The City of Tokyo will endow a museum of photography in 1993. It is planned to open the doors in temporary premises in 1990. Finally, in response to the campaign, the National Museum of Modern Art, Tokyo, has decided to create a department of photography in its annex which will be refurbished towards 1993.

But old documentary photographs have been scattered except for those conserved in libraries or a few museums which existed in a political and socio-cultural environment which was particularly favourable to the exploitation of the new photographic technology.

The good collections in Hokkaido such as those at the Municipal Library of Hakodate and at the University of Hokkaido, owe their existence to the foreign and Japanese photographers who were brought in by Missionaries to record everything in Hokkaido at the beginning of the Meiji era.

THe Naticnal Museum of Tokyo keeps photographs of art objects taken right at the beginning of the Meiji period. The movement led by the government to throw out Buddhism left, in return, photographs of Buddhist art.

I shall now give a general view of photographic collections by category:

1) Artistic photography:

For the last ten years, art museums have begun to collect photographs and/or to organise photographic exhibitions. The collection of the National Museum of Modern Art of Kyoto, based largely on that of Arnold Gilbert of Chicago, is noteworthy. It numbers around a thousand items covering the history of western photography from the daguerreotype through Ansel Adams, Henri Cartier-Bresson, Eugene Smith etc. to the new wave.

The Municipal Museum of Kawasaki has a rich collection of AMAYA Hiroshi and one should not forget the Prefectural Museum of Hyogo and the Municipal Museum of Fukuoka.

2) Documentary photography

Except for a few libraries in the Hokkaido region and elsewhere, Japanese libraries do not, in general, have good collections. This is because of ignorance of the documentary value of iconographic collections.

This is why photography is not subject to legal deposit, and the National Diet Library does not have a a department of photography or good collections, although it collects published photo-albums.

3) Commercial photography

There are around two hundred photographic agencies in Japan from large interdisciplinary agencies such as Orion Press or the Pacific Press Service to Ars Planning, a small collection of Ukiyoe. Most of these agencies are listed in the "Stock photo guide" directory, published each year as a supplement to the monthly professional magazine "Commercial photo".

4) Press photography

The daily, Mainichi, allows access to its collection of press photographs which has grown into one of the richest in Japan without being damaged by the great earthquake of 1923 or the bombs during the war.

2. Accessibility of photographic reproductions of works of art

The immaturity of photographic collections causes difficulties in access. Here I should like to discuss problems of access in relation to photographic reproductions of art objects.

As Andre Malraux has said in Le Musée imaginaire, "For the past hundred years (if we except the activities of specialists) the history of art has been the history of that which can be photographed." (1) Photographic reproductions of art objects are indispensable to the study of art.

But it is rather difficult to get access to them in Japan. This has been most strongly emphasised by foreign historians of Japanese art, among others by Ellen Connaent, one of the participants in the international symposium on modern Japanese and western art held in Tokyo in 1988.

There are several reasons.

Museum libraries and picture libraries are not well developed apart from the Centre for Research and Information at the Tokyo National Museum. Here a card catalogue is available and photographic reproductions are on open access. The setting up of the Centre in 1984 set a precedent but reproductions of objects collected elsewhere are few.

Centres in the national museums of Kyoto and Nara followed.

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(1) Malraux, Andre. Museum without walls trans. from the French Le Musée imaginaire by Stuart Gilbert and Francis Price. London: Secker & Warburg, 1967. p.111

Private collectors tend not to allow access to their art collections and are even less likely to allow them to be photographed. This is, on the one hand, because there is not an accepted notion of heritage and, on the other hand, through fear of a threat to their proprietary rights to art works. That is to say, the lack of a copyright agreement.

Finally, researchers themselves do not accept the need to establish fundamental conditions such as equal ease of access to documents, books and photographic collections, for their own research.

3. Application of new technology

The development of new technologies, especially those for storing images, is setting the scene for very accessible documentation. The application of video disc, optical numerical disc or CD-ROM has accelerated interest in fast and interactive image retrieval.

The following are a few examples.

The JPRC (Japan Photo Research Centre), a new company bringing together ten photographic agencies with different specialisations, began operating in 1988. Six months later it had already acquired a network of forty outlets equipped with an automated system comprising a micro-computer, a video disc containing fifty thousand images and their cataloguing details, a TRC monitor and colour printer. The searching strategies are sophisticated enough to allow retrieval of photographs by words which describe a feeling, a photographic angle, the movement of an object, etc..

Another projected system using optical magnetic disc is about to become commercially available in this field.

In the field of optical numerical discs, the Mainichi-shimbun Society mentioned above has already captured forty thousand photographic images which can be searched by random keywords.

The National Museum of Ethnology is known for its visual data base of artifacts. This is one of the most sophisticated systems in the world which, on the one hand, uses magnetic disc for storage of data reduced to a resolution of 256x256 and, on the other hand, uses numerical optical disc for high definition images at 1024x1024. The use of a mosaic screen with a multiple window system is much appreciated.

A version for photographic collections will shortly be available. This new system allows very rapid filing of images and uses the

TVHD technique.(High definition television which, in Japan, is called "Hi-vision")

CD-ROM was first applied in this field to the collections of the Municipal Museum of Modern Art in Saku by Bijutsu-nenkan-sha, Tokyo.

Many other museums are intending to introduce "Hi-vision" systems and it seems that even photographers are using "Hi-vision" screens for their exhibitions. I refer, for example, to SHINOYAMA Kishin's exhibition on the theme of architecture, put on in collaboration with the architect ISOZAKI Arata.

The hardware for "Hi-vision" systems is still very expensive and there is not yet compatibility between that of different makes of CD-ROM. It will therefore be a while before they become popular. But in the near future we shall see the spread of automated picture libraries.

4. Interface between photography and new technology

Photography has always evolved with the development of technology. One could therefore say that, thanks to technology, the history of photography is the history of "seeing".

We have seen just now how new technology is used to store and retrieve images which are already available on film. This points clearly to the electronic storage of traditional photographs.

In this area, we should note the application of technology to the restoration of photographs, for example, at the Domon Ken Museum.

The most important thing is the appearance of electronic cameras equipped with discs in place of film. It could be said that we are about to witness the transition from the age of the fixed material image to that of the immaterial image.

I believe that the future of photography will follow two distinct paths. One path will enhance the artistic value of the material photograph. The collection of original prints will become more appreciated. The other path will lead to a world of electronic image and photo libraries. In addition to the treatment of images and the methods of storage, retrieval and visual projection of numerically stored images will be done more effectively. And this will guarantee greater accessibility to photographic images.

National museums, on the one hand, are beginning to produce 8"x10" photographs of objects which are of higher quality than "Hi-vision", and on the other hand, they are in the process of establishing photographic data banks.

Conclusion

In conclusion, I would like to note that the artistic and documentary value of photographs is beginning to be recognised as a part of the cultural heritage in Japan. The application of new technology will promote this tendency. Above all, in order to study the history of art it is necessary to collect photographs of works.

Finally, I should add that in the month of April 1989, we created a society, called the "Japan Art Documentation Society" to bring together art librarians, museum curators, photo librarians, art historians, computer experts and journalists, five years after the first European Conference of the IFLA Section of Art Libraries in Geneva in 1985 at which I suggested that it be created.

What we have discussed today appears to us to be one of the most urgent tasks to which we should give our attention.

We express our profound thanks to Margaret SHAW who has always encouraged us as Chairman of the Section and to Huguette ROUIT who remains always my dear friend.

Division: BIBLIOTHEQUES SPECIALISEES

Section/RT: BIBLIOTHEQUES D'ART

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Librarianship, law and communication : the issue

by

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Librarianship, law and communication : the issue

A synopsis

Librarianship and law have many a point in common : they play the same primordial part, they have both reached a "critical" stage.

The primordial part is conservation : libraries preserve signs of cultural, literary or artistic interest. The law preserves the signs of an organized social order. Now, both are confronted with the emergence of new information technologies that are bound to have disturbing effects, on the performance and also, most probably, on the very nature ot their functions.

The emergence and progress of the new communication technologies in libraries cannot fail to call into question what was up to now the legal framework of librarianship, in this case the copyright or publishing right legislation.

This confrontation of libraries and new communication technologies has a legal aspect that is both revealing and operative. It is revealing in so far as it provides a way of looking at new developments in library practice. It is operative in so far as regulations, that reflect a given point of balance,

might well slow down, hamper or even stop the current evolution.

In our analysis, we must embrace the situation world-wide, as this is an international congress, on a world-wide issue. No more than communication itself can the issue be looked at within narrow national boundaries. Like communication, it can only be world-wide, though we must be aware of the differences between the states of things in the various national, or continental contexts.

Do the new communication technologies (henceforward NCTs) really disturb the order that has prevailed for centuries in libraries? We must enquire whether the "classical" order, made up of a subtle compound of legislation and social practice can be upset by technological developments that appear to be so promising for the future of libraries, perhaps even for their renovation. Does the question require that we draw the outlines of a new order, and, if so, can we define some of its founding principles, if we fail to trace any in the present situation? As the current order, that used to bear mainly on cultural matters, is now being deeply modified by new economic, international, or even strategic dimensions, we realize that the importance of the issue makes it necessary to refrain from rash conclusions.

The main guideline of this paper is that the current balance is modified, not by the introduction of new technologies, but by the use that is made of them beyond the traditional

functions of libraries.

The traditional legal framework is apt to deal with the new technical or conceptual instruments introduced by the modern communication technologies as long as they perform usual library tasks. This does not imply that the road is quite clear but we just have to adapt the existant regulations to the new instruments while the overall logic remains the same.

The case is different when the new tool, associated most often with some form of intelligence, whatever the added value, modifies a usual activity, or even creates a new one. In such a case, the law can be an obstacle, or even stop the whole process.

Do NCTs tantalize librarians? Libraries would be doomed if they renounced using them. On the other hand, they would be a great help in the performance of traditional functions, They would make it possible, sometimes even necessary out of economic necessity or rationality, to develop new functions. Should librarians give it all up because of legal obstacles?

The main stumbling-block is the traditional function of circulation. Public access conditions to library materials are changed and more novelties are forthcoming. Local use of library materials will yield ground to remote searching. Lending is just a hybrid activity that still implies the temporary physical presence of the reader, even if the document is used

elsewhere, which is not the case with remote communication instruments, whether applied to sounds, pictures, or other messages.

Is remote consulting a new way of carrying out a traditional library function, or is the whole process a new function? What if the remote user at home records the document, no matter if it is by a numerical or an analogical device? Is the problem basically different with photocopies, whether ordered locally or from home, whether mailed or on line?

Generally, national legislations make a distinction between the various modes of exploitation of documents, but is the standard relevant from the point of view of libraries? Isn't it the same goal that the user has in sight, whatever the medium, and consequently, shouldn't that goal be the standard of lawfulness, as is the case in some countries? As far as the law is concerned, there is still a gap between two viewpoints in the traditional balance. In countries with restrictive legislations, toleration was the usual practice, either because of the passive attitude of the entitled party, or because there was no real economic stake.

Now, this sort of toleration that still prevails in the traditional balance might well be done away with, and the same could happen in countries where toleration had a legal foundation. Indeed, the financial stability of information technologies is often dependant on marginal profits, and every

unpaid operation may be damaging. Libraries were the first out of necessity, to launch a policy based on charged services. That was a new step toward their assimilation in the economic channels. Such services can gain important positions on the information market and compete with the services offered by the private sector, let alone those supplied by the information firms.

Further developments are bound to call for a clearer distribution of and for a renovated order. The requisites of what can now be called the information industry make it necessary. The strategic, as well as economic importance of the question makes it a must for all governments, as discrepancies between the various legislations can worsen existing imbalances and create new ones.

IFLA

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"Supranational and Constitutional Courts in Europe : Functions and Sources : Germany, Austria, and Switzerland"

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55th Council and General Conference of the IFLA

Paris 1989

The International Association of Law Libraries

Joachim Schwietzke:

"Supranational and Constitutional Courts in Europe : Functions and Sources : Germany, Austria, and Switzerland"

Summary

I. Historical Introduction

The author gives special attention to the constitutional court in Germany, and his introduction shows that Germany has a long tradition in treating questions of constitutional review. As a federal state throughout its existence, Germany was naturally always responsive to the question of how to settle disputes between the Union and the member states.

Going back as far as the Supreme Court of the Imperial Chamber (Reichskammergericht) which ceased to exist in 1806, the author emphasizes that discussion in Germany about constitutional review has always taken into account the situation in other countries, including the United States. On the other hand, German institutions in turn were also known in the United States. For instance, the Court of the Imperial Chamber is refered to in the Federalist No. 80 and by Randolph in argument in Chisholm v. Georgia, 2 Dallas 425 (motion of 11 August 1792), at a time when it was still in existence.

Other notable steps in the history of constitutional courts in Germany are the Imperial Court planned in Art. 126 of the Imperial Constituion adopted by the Frankfurt National Assembly in 1849, which did not come into existence, and the State Court (Staatsgerichtshof) established by the Weimar Constitution in 1919. The decisions of this court and their political repercussions are described by the author, along with the fervent scholarly debate on judicial review of those times. As protagonists of opposite positions in this debate, authors such as Hans Kelsen and Carl Schmitt may be cited.

II. The Federal Constitutional Court of the Federal Republic of Germany

The constitution (Basic Law) of the Federal Republic (1949) mentions in its Arts. 92-94 a Federal Constitutional Court as a central organ of the state, on the same level as the legislative and executive branches of government. Never before has any court in Germany had more competences than this Court. Its decisions have profoundly influenced the development of the Federal Republic during its whole existence. The Court was in fact created only after the "Law on the Federal Constitutional Court" was enacted in 1951.

The status, the two panels (Senate), their composition, and the competences of the Federal Constitutional Court are described by the author, together with an evaluation of the Court's role in the political and judicial life of the Federal Republic.

III. Austria and Switzerland

A survey is given of the history, composition and decisions of the constitutional courts of Austria and Switzerland. In Austria, constitutional review goes back to the constitution of 1867 and now is regulated in the constitution of 1920, which follows the ideas of Hans Kelsen.

Constitutional control in Switzerland is executed by the Supreme Court and not by a special constitutional court. In certain cases it is in the competence of the Parliament to exercise constitutional control, for instance whether the constitutions of the cantons violate the constitution of the Union.

IV. Sources

The titles of the reporters for decisions of the constitutional courts of the Federal Republic of Germany, Austria and Switzerland are cited. Information about books and articles on the constitutional courts is given with special attention to publications in English. Finally, a list of English translations of decisions of the German Federal Constitutional Court is added, prepared by Prof. D.P. Kommers, Notre Dame Law School, Notre Dame, Indiana, USA.

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